#### **United States**

OMB Control No. 2070-0020 Expires on 11/30/2016

## **ENVIRONMENTAL PROTECTION AGENCY**

## Washington, DC 20460

#### Notice of Arrival of Pesticides and Devices

Send Completed Form to Appropriate Regional Office Listed in the Instructions for this Form.

Note: Read Instructions before completing form.

THE RESERVE THE RE	Part 1	:To Be Co	mpleted by Importer	of record or Licensed Customs	Broker	
1. Name and Complete				2. Name and Complete Addres		
CH Robinson Freight Services Ltd 900 Town & Country Lane, Ste 310 Houston, TX 77024 (28937)				Vision Flurochem USA Inc. 5636 Belton Lane Mckinney, TX 75070		
Return Form to this	Address		· ·	Return to this Address		
3. Name and Complete	Address of	Shipper		4. EPA Registration Number	5. EPA Producer Establishment No.	
				35935-92	090414-CHN-001	
Vision Fluorochem (Na 150 Puqiao Rd.,Nanjing		Industry Pa	rk	6. Brand Name of Product		
Nanjing China 210047	5 CALCINION	madbity 11		Fludioxonil Technical		
7. Active Ingredients a	nd Percenta	age of Each		Language Control of the Control of t	Construction of the Constr	
Fludioxonil 99%						
8. Unit Size	9, Quantit	y	10. Total Net Weight	ht 11. Country of Origin		
25 kg drums	6 drums		150 kgs	China	wordth **	
12. Port of Entry				13. Name and Complete Address of Carrier		
Chicago, Il 3901				AWB 999-26299173		
14. Entry Number		15. Antic	pated Entry Date	Air China Ltd, 10000W. O'Hare Ave		
279-1891343-8		March 28	3, 2015	Chicago, IL 60666	•	
17. Location of Goods	for Examin	ation after	Importation	Information is shown in the a	constituting Confidential Business above blocks numbered: (Note: Blocks to CBI treatment–see instructions.)	
Nufarm Americas 11901 South Austin A Alsip IL 60803 or Channel Distribution		Thorndale A	Ave. Itasca, IL 60143	4, 3, 0 and 7 are not cantical	to control of the con	
processing of the Noti	ice of Arriva	1.)		t all that apply: (The following in		
☐ 18a. A pesticide tr	ansferred b	etween reg	gistered establishments	s operated by the same produce	r. Domestic Producer Establishment	
	ransferred h	etween red	gistered establishment	s not operated by the same proc	ducer. Domestic Producer Establish-	
ment Number:	armen a			per of Product being Formulated		
	:	ndor an Ev	narimantal Hea Darmit	Experimental Use Permit Num	her	

Total Net Weight: 150 kgs  Entry Number: 279-1891343-8  18d. A Pesticide distributed for research and development purposes without an Experimental Use Permit.  18e. A pesticide transferred solely for export. Domestic Producer Establishment Number:  18f. A pesticide distributed under an emergency exemption. Emergency Exemption Number:  18g. A pesticide transferred for the purposes of disposal.  18h. Other. Provide an explanation including the intended use and a description of why the product is being imported into States in Block 19 — Remarks.  19. Remarks. Provide additional information here. It is recommended that a copy of the label affixed to the product be submitted the NOA.  Certification  1 certify that the statements I made on this form and all attachments thereto are true, accurate and complete. I acknowledge applicable by	
☐ 18e. A pesticide transferred solely for export. Domestic Producer Establishment Number: ☐ 18f. A pesticide distributed under an emergency exemption. Emergency Exemption Number: ☐ 18g. A pesticide transferred for the purposes of disposal. ☐ 18h. Other. Provide an explanation including the intended use and a description of why the product is being imported into States in Block 19 — Remarks.  19. Remarks. Provide additional information here. It is recommended that a copy of the label affixed to the product be submitted the NOA.  Certification  Leartify that the statements I made on this form and all attachments thereto are true, accurate and complete. I acknowledge	
☐ 18e. A pesticide transferred solely for export. Domestic Producer Establishment Number: ☐ 18f. A pesticide distributed under an emergency exemption. Emergency Exemption Number: ☐ 18g. A pesticide transferred for the purposes of disposal. ☐ 18h. Other. Provide an explanation including the intended use and a description of why the product is being imported into States in Block 19 — Remarks.  19. Remarks. Provide additional information here. It is recommended that a copy of the label affixed to the product be submitted the NOA.  Certification  Leartify that the statements I made on this form and all attachments thereto are true, accurate and complete. I acknowledge	
☐ 18f. A pesticide distributed under an emergency exemption. Emergency Exemption Number: ☐ 18g. A pesticide transferred for the purposes of disposal. ☐ 18h. Other. Provide an explanation including the intended use and a description of why the product is being imported into States in Block 19 — Remarks. ☐ 19. Remarks. Provide additional information here. It is recommended that a copy of the label affixed to the product be submitted the NOA. ☐ Certification ☐ Leastify that the statements I made on this form and all attachments thereto are true, accurate and complete. I acknowledge	
□ 18g. A pesticide transferred for the purposes of disposal.  □ 18h. Other. Provide an explanation including the intended use and a description of why the product is being imported into States in Block 19 — Remarks.  □ 19. Remarks. Provide additional information here. It is recommended that a copy of the label affixed to the product be submitted the NOA.  □ Certification  □ Location the statements I made on this form and all attachments thereto are true, accurate and complete. I acknowledge	
18h. Other. Provide an explanation including the intended use and a description of why the product is being imported into States in Block 19 – Remarks.  19. Remarks. Provide additional information here. It is recommended that a copy of the label affixed to the product be submitted the NOA.  Certification  Leartify that the statements I made on this form and all attachments thereto are true, accurate and complete. I acknowledge	
Certification  Leastify that the statements I made on this form and all attachments thereto are true, accurate and complete. I acknowledge	
I cortify that the statements I made on this form and all attachments thereto are true, accurate and complete. I acknowledge	ed with
I cortify that the statements I made on this form and all attachments thereto are true, accurate and complete. I acknowledge	-
I cortify that the statements I made on this form and all attachments thereto are true, accurate and complete. I acknowledge	
I cortify that the statements I made on this form and all attachments thereto are true, accurate and complete. I acknowledge	
I cortify that the statements I made on this form and all attachments thereto are true, accurate and complete. I acknowledge	
I certify that the statements I made on this form and all attachments thereto are true, accurate and complete. I acknowledge	that any
knowingly false or misleading statement may be punishable by fine or imprisonment or both under applicable law.	that any
20. Printed Name of Importer of Record or Licensed Customs Broker  CH Robinson Frt Svcs Ltd, Marta Pena  Telephone No.: 281-313-6000 Xi	6647
21. Signature of Importer of Record or Licensed Customs Broker:  Date: April 10	, 2015
Part II: To Be Completed by U.S. Environmental Protection Agency	
Action to be taken by U.S. Customs and Border Protection:	N 878-
Release Shipment Detain for inspection inspection.	t pending
Other. (Specify) ENTORIE WENT HOLD EPA INSPECTION	
Remarks: 19 OPR 12.113- THIS IMPORT SHIPMENT SHOULD BE MOVED TO A	
CENTRAL EXAMUNATION SHE FOR INSPECTION PLEASE CONTACT EPA A	•
312-986-7598 OR 312-886-6009 WHEN SHIPMENT IS AVAILABLE	
Signature and Title of EPA Official Date: 416 M	9
Part III To Be Completed by U.S. Customs and Border Protection	
The information shown in Part I was compared with the entry papers for this shipment and no discrepancies were noted. The was handled as instructed by EPA in Part II. Any deviations should be brought to the attention of EPA before releasing the shipment should be noted in "Remarks."	e shipment ipment and
Remarks:	
Signature of District Director of Customs:	

Paperwork Reduction Act Notice: The estimated average time to read the instructions and complete this form is 26 minutes. Send comments regarding the burden estimates or any other aspect of this collection of information to: Director, Collection Strategies Division, Office of Environmental Information (OEI), U.S. Environmental Protection Agency (Mail Code 2822), 1200 Pennsylvania Avenue, NW, Washington, DC 20460. Include OMB number 2070-0020 in any correspondence.



#### **United States**

OMB Control No. 2070-0020 Expires on 11/30/2016

## **ENVIRONMENTAL PROTECTION AGENCY**

### Washington, DC 20460

#### **Notice of Arrival of Pesticides and Devices**

Send Completed Form to Appropriate Regional Office Listed in the Instructions for this Form.

Note: Read Instructions before completing form.

	Part	1: To Be Co	mpleted by Importer	of record or Licensed Customs	Broker	
1. Name and Complete	<del></del>			2. Name and Complete Address	~	
Expeditors Internationa 849 Thomas Drive Bensenville, IL 60106	·			Nufarm Americas Inc. 11901 South Austin Avenue Alsip, IL 60803 T: 708-377-1330		
Return Form to this Address				Return to this Address		
3. Name and Complete	Address o	f Shipper		4. EPA Registration Number	5. EPA Producer Establishment No.	
Nutrichem Co., LTD	/::- D			35935-92	88106-CHN-001	
Building D-1, No. 66 X Haidian District, Beijin		oad		6. Brand Name of Product	1	
P.R. China 110108777062155				Fludioxonil Technical	,	
7. Active Ingredients a	nd Percent	age of Each				
Fludioxonil 99.0%						
8. Unit Size 9. Quantity 10. Total Net Weight 11. Country of Origin						
25 Kg Cartons	10		250 Kg	China		
12. Port of Entry				13. Name and Complete Address of Carrier		
Chicago Illinois				ATO DEIECCARCO AIRI IN	T.C	
14. Entry Number		15. Antici	pated Entry Date	AIR BRIDGECARGO AIRLINES ON BOARD: RU622 AIR WAYBILL NUMBER 580-07014556  16. I assert that information constituting Confidential Business Information is shown in the above blocks numbered: (Note: Blocks		
231-0232145-7		April 27,	2015			
17. Location of Goods	for Examin	ation after l	mportation			
Nufarm Americas, Inc. 11901 S Austin Ave Alsip, IL 60803 Phone: 708-377-1388					CBI treatmentsee instructions.)	
18. [Optional] For pesti processing of the Notic			Registration No., select	all that apply: (The following info	rmation may expedite the	
☐ 18a. A pesticide tra	nsferred be	tween regi	stered establishments o	operated by the same producer. I	Domestic Producer Establishment	
Number:			Martinani,		900-b La.	
☐ 18b. A pesticide tra	nsferred be	tween regi	stered establishments	not operated by the same produc	ter. Domestic Producer Establish-	
ment Number:		E	PA Registration Numbe	r of Product being Formulated, if	applicable:	
18c. A pesticide dis	tributed un	der an Exp	erimental Use Permit. I	Experimental Use Permit Numbei	•	

EPA Registration Number: 35935-92	Product Name: Fludioxonil Technical		······································		
otal Net Weight: 250 Kg Entry Number: 231-0232145-7					
☐ 18d. A Pesticide distributed for research and deve	Johnson numasas without an Evnarima	ontal I Ica Parmit			
18e. A pesticide transferred solely for export. Do					
18f. A pesticide distributed under an emergency					
18g. A pesticide transferred for the purposes of di	•				
18h. Other. Provide an explanation including the States in Block 19 Remarks.	,	he product is bei	ng impo	orted into the United	
19. Remarks. Provide additional information here. It the NOA.	is recommended that a copy of the labe	l affixed to the pr	roduct b	e submitted with	
AIR WAYBILL NUMBER 580-07014556					
	Certification				
I certify that the statements I made on this form ar knowingly false or misleading statement	nd all attachments thereto are true, accu	rate and comple ent or both und	te. I ackr er applic	nowledge that any able law.	
20. Printed Name of Importer of Record or Licensed Customs Broker		Telephone No.:	708-37	7-1365	
21. Signature of Importer of Record or Licensed Customs Broker:	welter		Date:	April 24, 2015	
Part II: To Be Com	pleted by U.S. Environmental Protect	ion Agency	•		
Action to be taken by U.S. Customs and Border Prote	ction:				
Belease Shipment Detain for inspection	Release shipment to consignee under b inspection.	ond. Shipment n	nust be l	neld intact pending	
Other. (Specify)					
Remarks:					
	Mount office		Date:	27/15	
•	mpleted by U.S. Customs and Border I			<u> </u>	
The information shown in Part I was compared with was handled as instructed by EPA in Part II. Any dev	n the entry papers for this shipment and iations should be brought to the attenti should be noted in "Remarks."	no discrepancies on of EPA before	s were no releasin	oted. The shipment ig the shipment and	
Remarks:					
Signature of District Director of Customs:			Date:		

Paperwork Reduction Act Notice: The estimated average time to read the instructions and complete this form is 26 minutes. Send comments regarding the burden estimates or any other aspect of this collection of information to: Director, Collection Strategies Division, Office of Environmental Information (OEI), U.S. Environmental Protection Agency (Mail Code 2822), 1200 Pennsylvania Avenue, NW, Washington, DC 20460. Include OMB number 2070-0020 in any correspondence.

			·	
	•			
	•			
	· · · · · · · · · · · · · · · · · · ·			
				•
			Same Section	
	·			
		•		•
•				
•				
		•		
	•			
		·		
		·		
	·			

## FLUDIOXONIL TECHNICAL

#### For Manufacturing Use Only

# ACTIVE INGREDIENT: 99.0% Fludioxonil 99.0% OTHER INGREDIENTS: 1.0% TOTAL: 100.0%

EPA REG. NO. 35935-92

EPA EST. NO.88106-CHN-00

# KEEP OUT OF REACH OF CHILDREN CAUTION

SEE BELOW FOR FIRST AID AND ADDITIONAL PRECAUTIONARY STATEMENTS

For Chemical Spill, Leak, Fire, or Exposure, Call CHEMTREC (800) 424-9300 For Medical Emergencies Only, Call (877) 325-1840

## PRECAUTIONARY STATEMENTS HAZARDS TO HUMANS AND DOMESTIC ANIMALS

### CAUTION

Harmful if inhaled or absorbed through skin. Avoid contact with eyes, skin, or clothing. Avoid breathing vapor or spray mist. Wash thoroughly with scap and water after handling. Remove contaminated clothing and wash before reuse.

- //	FIRST AID
IF IN EYES	Hold eye open and rinse slowly and gently with water for 15 to 20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue insting eye. Call a poison control center or doctor for treatment advice.
IF ON SKIN OR CLOTHING	Take off contaminated clothing. Rinse skin immediately with plenty of water for 15 to 20 minutes. Call a poison control center or doctor for treatment advice.
IF INHALED	Move person to fresh air.     If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible.     Call a poison control center or doctor for further treatment advice.
IF SWALLOWED	Call a poison control center or doctor immediately for treatment advice.     Have person sip a glass of water if able to swallow.     Do not induce vortiling unless told to do so by the poison control center or doctor.     Do not give anything by mouth to an unconscious person.
	HOT LINE NIGHTED

#### HOT LINE NUMBER

Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact 1-877-325-1840 for emergency medical treatment information.

#### **ENVIRONMENTAL HAZARDS**

This product is toxic to fish and aquatic invertebrates. Do not discharge effluent containing this product into lakes, streams, ponds, estuaries, oceans, or other waters unless in accordance with the requirements of a National Pollutant Discharge Elimination System (NPDES) permit and the permitting authority has been notified in writing prior to discharge. Do not discharge effluent containing this product to sewer systems without previously notifying the local sewage treatment plant authority. For guidance contact your State Water Board or Regional Office of the EPA.

#### DIRECTIONS FOR USE

It is a violation of Federal law to use this product in a manner inconsistent with its labeling.

This product is intended for the formulation of fungicide products. This product may be used to formulate products for specific use(s) not listed on the MP label if the formulator, user group, or grower has compiled with the U.S. EPA data submission requirements regarding the support of such use(s).

FOR MANUFACTURING USE ONLY INTO A FUNGICIDE FOR THE FOLLOWING

- 1. Seed Treatment Uses: Root and Tuber vegetables, Buib vegetables, Leafy vegetables, except Brassica vegetables, Brassica (Cole) leafy vegetables, Legume vegetables (succulent or dried), Frutiting vegetables (except cucurbits), Cucurbit vegetables, Cereal grains, Nongrass animal feeds (forage, fodder, straw, and hay), Herbs and Spices, Rape, Cotton, Peanut, Crambe, Flax, Jojoba, Lesquerelia, Safflower, and Suriflower.
- 2. Post Harvest Uses: Citrus fruit group (Crop group 10), Kiwi, Pome fruit group (Crop group 11), Pomegranate, Stone fruit group (Crop group 12), and Sweet potato.
- Uses for which the US EPA has accepted the required data and/or citations of data that the formulator has submitted in support of registration; and
- 4. Uses for experimental purposes that are in compliance with US EPA requirements

#### STORAGE AND DISPOSAL

DO NOT contaminate water, food, or feed by storage or disposal.

PESTICIDE STORAGE: Atways use original container to store pesticides in a cool, dry secured warehouse or storage building. DO NOT store near food and feed. Containers should be opened in well-ventilated areas. Keep container tightly sealed when not in use.

PESTICIDE DISPOSAL: Open dumping is prohibited. Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility.

#### CONTAINER DISPOSAL:

Nonrefillable container. Do not reuse or refill this container. Completely empty bag into manufacturing equipment. Offer for recycling if available or dispose of empty bag in a sanitary landfill or by incineration, or, if allowed by state and local authorities, by burning, if burned, stay out of smoke.

#### WARRANTY DISCLAIMER AND LIMITATION OF LIABILITY

The directions for use of this product must be followed carefully. TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, (1) THE GOODS DELIVERED TO YOU ARE FURNISHED "AS IS"BY MANUFACTURER OR SELLER AND (2) MANUFACTURER AND SELLER MAKE NO WARRANTIES, GUARANTEES, OR REPRESENTATIONS OF ANY KIND TO BUYER OR USER, EITHER EXPRESS OR IMPLIED, OR BY USAGE OF TRADE, STATUTORY OR OTHERWISE, WITH REGARD TO THE PRODUCT SOLD, INCLUDING, BUT NOT LIMITED TO MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, USE, OR ELIGIBILITY OF THE PRODUCT FOR ANY PARTICULAR TRADE USAGE. TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, BUYER'S OR USER'S EXCLUSIVE REMEDY, AND MANUFACTURER'S OR SELLER'S TOTAL LIABILITY SHALL BE FOR DAMAGES NOT EXCEEDING THE COST OF THE PRODUCT.

If you do not agree with or do not accept any of directions for use, the warranty disclaimers, or limitations on liability, do not use the product, and return it unopened to the Seller, and the purchase price will be refunded.

(RV030714) 17103000

NET WEIGHT: 1 X 55 LBS (1 x 25 KG)

Manufactured For NUFARM LTD.
4020 Aerial Center Parkway Morrisville, NC 27560



#### 1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

**Product Name:** 

Fludioxonil Technical

EPA Req. No.:

35935-92

**Product Type:** 

Fungicide - For Manufacturing Use Only

Company Name:

Nufarm Limited.

4020 Aerial Center Parkway Morrisville, NC 27560 1-800-345-3330

Telephone Numbers: For Chemical Emergency, Spill, Leak, Fire, Exposure, or Accident,

Call CHEMTREC Day or Night: 1-800-424-9300 For Medical Emergencies Only, Call 1-877-325-1840

This product is an EPA FIFRA registered pesticide. Some classifications on this SDS are not the same as on the FIFRA label. Certain sections are superseded by federal law governed by EPA for a registered pesticide. Please see Section 15. REGULATORY INFORMATION for explanation.

#### 2. HAZARDS IDENTIFICATION

#### **HEALTH HAZARDS:**

Acute toxicity, inhalation

Category 4

Specific target organ toxicity – Repeated exposure

Category 2

#### ENVIRONMENTAL HAZARDS:

Hazardous to aquatic environment, acute

Category 1

Hazardous to aquatic environment, chronic

Category 1

#### SIGNAL WORD:

WARNING

#### **HAZARD STATEMENTS:**

Harmful if inhaled. May cause damage to organs (liver, kidney) through prolonged or repeated exposure. Very toxic to aquatic life with long lasting effects.





#### PRECAUTIONARY STATEMENTS

Do not breathe dust, fumes, gas, mist, vapors or spray. Use only outdoors or in a well-ventilated area. Call a poison control center or doctor if you feel unwell. If exposed or concerned: Call a poison center/doctor. See Section 4 First Aid and label instructions for emergency medical advice. Get medical advice/attention if you feel unwell.

Do not eat, drink, or smoke when using this product.

Respiratory protection not normally required. If dusts exceed acceptable levels, wear NIOSH approved airpurifying respirator with cartridges/canisters approved for use against pesticides. Get medical advice/attention if you feel unwell.

Dispose of contents/container in accordance with state and federal regulations. See Section 13 and product label for disposal instructions.

#### 3. COMPOSITION / INFORMATION ON INGREDIENTS

COMPONENTS

CAS NO.

% BY WEIGHT

#### Fludioxonil Technical

Fludioxonil

Proprietary process related impurities

131341-86-1

95.06 - 100

Trade Secret

Trade Secret

Synonyms:

4-(2,2-difluoro-1,3-benzodioxol-4-yl)-1H-pyrrole-3-carbonitrile

Ingredients not precisely identified are proprietary or non-hazardous. Values are not product specifications

#### 4. FIRST AID MEASURES

If on Skin or Clothing: Take off contaminated clothing. Rinse skin immediately with plenty of water for 15 to 20 minutes. Call a poison control center or doctor for treatment advice.

If Swallowed: Call a poison control center or doctor immediately for treatment advice. Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by the poison control center or doctor. Do not give anything by mouth to an unconscious person.

If in Eyes: Hold eye open and rinse slowly and gently with water for 15 to 20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a poison control center or doctor for treatment advice.

If Inhaled: Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible. Call a poison control center or doctor for further treatment advice.

Most Important symptoms/effects: Dermal irritation, Respiratory irritation

Indication of Immediate medical attention and special treatment if needed: For ingestion there is no specific antidote available. Treat symptomatically.

#### 5. FIRE FIGHTING MEASURES

**Extinguishing Media:** Recommended for large fires: alcohol-resistant foam, dry chemical, water spray, or carbon dioxide. Recommended for small fires: dry chemical or carbon dioxide.

**Special Fire Fighting Procedures:** Firefighters should wear NIOSH/MSHA approved self-contained breathing apparatus and full fire-fighting turn out gear. Toxic, irritating vapors may be formed if product is involved in a fire. Dike area to prevent runoff and contamination of water sources. Dispose of fire control water later.

Unusual Fire and Explosion Hazards: Avoid generating dust; fine dust dispersed in air in sufficient concentrations, and in the presence of an ignition source, is a potential dust explosion hazard. If water is used to fight fire, contain runoff, using dikes to prevent contamination of water supplies. Dispose of fire control water later. Hazardous Decomposition Materials (Under Fire Conditions): May produce gases such as hydrogen chloride, hydrogen fluoride, oxides and nitrogen.

#### 6. ACCIDENTAL RELEASE MEASURES

**Personal Precautions:** Wear appropriate protective gear for the situation. See Personal Protection information in Section 8.

**Environmental Precautions:** Prevent material from entering public sewer systems or any waterways. Do not flush to drain. Large spills to soil or similar surfaces may necessitate removal of topsoil. The affected area should be removed and placed in an appropriate container for disposal.

Methods for Containment: Dike spill using absorbent or impervious materials such as earth, sand or clay. Collect and contain contaminated absorbent and dike material for disposal.

Methods for Cleanup and Disposal: Avoid creation of dusty conditions. If dry, sweep or scoop up material and place into container for disposal. If wet, pump any free liquid into an appropriate closed container. Decontaminate tools and equipment following cleanup. See Section 13: DISPOSAL CONSIDERATIONS for more information.

Other Information: Dust deposits should not be allowed to accumulate on surfaces, as these may form an explosive mixture if they are released into the atmosphere in sufficient concentration.

Avoid dispersal of dust in the air (i.e., clearing dust surfaces with compressed air).

Large spills may be reportable to the National Response Center (800-424-8802) and to state and/or local agencies.

#### 7. HANDLING AND STORAGE

#### HANDLING:

Minimize dust generation and accumulation. Routine housekeeping should be instituted to ensure that dusts do not accumulate on surfaces. Dry powders can build static electricity charges when subjected to the friction of transfer and mixing operations. Provide adequate precautions, such as electrical grounding and bonding, or inert atmospheres.

Avoid contact with eyes, skin or clothing. Avoid breathing dust. Users should wash hands before eating, drinking, chewing gum, using tobacco or using the toilet. Remove clothing/Personal Protective Equipment (PPE) immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing. Remove Personal Protective Equipment (PPE) immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

#### STORAGE:

Always use original container to store pesticides in a cool, dry secured warehouse or storage building. Do not store near food and feed. Containers should be opened in well-ventilated areas. Keep container tightly sealed when not in use. Do not contaminate water, food or feed by storage or disposal.

#### 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

#### **Engineering Controls:**

Where engineering controls are indicated by specific use conditions or a potential for excessive exposure, use local exhaust ventilation at the point of generation.

Ensure that dust-handling systems (such as exhaust ducts, dust collectors, vessels, and processing equipment) are designed in a manner to prevent the escape of dust into the work area (i.e., there is no leakage from the equipment).

#### **Personal Protective Equipment:**

**Eye/Face Protection:** To avoid contact with eyes, wear chemical goggles or shielded safety glasses. An emergency eyewash or water supply should be readily accessible to the work area.

**Skin Protection:** To avoid contact with skin wear long-sleeved shirt and long pants, shoes, socks, and chemical resistant gloves. An emergency shower or water supply should be readily accessible to the work area.

Respiratory Protection: Not normally required. If dusts exceed acceptable levels, wear NIOSH approved air-purifying respirator with cartridges/canisters approved for use against pesticides.

General Hygiene Considerations: Personal hygiene is an important work practice exposure control measure and the following general measures should be taken when working with or handling this material: 1) do not store, use and/or consume foods, beverages, tobacco products, or cosmetics in areas where this material is stored; 2) wash hands and face carefully before eating, drinking, using tobacco, applying cosmetics or using the toilet.

#### **Exposure Guidelines:**

	08	OSHA ACGIH			
Component	TWA	STEL	TWA	STEL	Unit
Fludioxonil	NE	NE	NE	NE	
Proprietary process impurities	N/A	N/A	N/A	N/A	

NE = Not Established N/A= Not Applicable

#### 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance:

Green-beige to faintly yellow solid powder

Odor:

Odorless

Odor threshold:

No data available

:Ha

6-8

Melting point/freezing point:

199.8 – 200.1° C

Initial boiling point and boiling range

No data available

Flash point:

Not applicable

Evaporation rate:

Not applicable

Flammability (solid, gas):

No data available

Upper/lower flammability or explosive limits:

No data available

#### Fludioxonil Technical

Vapor pressure: Vapor density: 3.9 x 10<sup>-4</sup> mPa (25° C) No data available

Relative density:

1.49 @ 20° C 1.39 mg/ml

Solubility(ies):
Partition coefficient: n-octanol/water:

2P\*

Autoignition temperature: Decomposition temperature:

No data available No data available

Viscosity:

No data available

**Note:** Physical data are typical values, but may vary from sample to sample. A typical value should not be construed as a guaranteed analysis or as a specification.

2.95

#### 10. STABILITY AND REACTIVITY

Reactivity: Not reactive

Chemical Stability: This material is stable under normal handling and storage conditions.

Possibility of Hazardous Reactions: Will not occur.

Conditions to Avoid: Keep away from heat, sparks and open flame. Minimize dust generate and accumulation.

Incompatible Materials: Strong oxidizing agents: bases and acids.

Hazardous Decomposition Products: Under fire conditions may produce gases such as hydrogen chloride, hydrogen fluoride, oxides and nitrogen.

#### 11. TOXICOLOGICAL INFORMATION

Likely Routes of Exposure: Dermal contact, Inhalation

Symptoms of Exposure: Dermal irritation, Respiratory inhalation

Delayed, immediate and chronic effects of exposure: Dermal irritation, Respiratory inhalation

**Toxicological Data:** 

Data from laboratory studies conducted on Fludioxonil Technical:

Oral: Rat LD<sub>50</sub>: >5,000 mg/kg

**Dermal:** Rabbit LD<sub>50</sub>: >2,000 mg/kg **Inhalation:** Rat 4-hr LC<sub>50</sub>: > 2.6 mg/L **Eye Irritation:** Rabbit: Slightly irritating **Skin Irritation:** Rabbit: Non irritating

Skin Sensitization: Not a contact sensitizer in guinea pigs following repeated skin exposure.

Subchronic (Target Organ) Effects: Repeated overexposure to fludioxonil may cause effects in the kidney and

Carcinogenicity / Chronic Health Effects: Fludioxonil did not cause cancer in laboratory animals. EPA has classified fludioxonil as a Group D chemical – not classifiable as to human carcinogencity.

Reproductive Toxicity: In animal studies, Fludioxonil has been shown not to interfere with reproduction.

Developmental Toxicity: Fludioxonil did not cause birth defects in animals.

Genotoxicity: In vitro bacterial assays and animal tests with fludioxonil did not demonstrate mutagenic effects.

Assessment Carcinogenicity: None listed with ACGIH, IARC, NTP or OSHA.

#### 12. ECOLOGICAL INFORMATION

#### **Environmental Hazards:**

This product is toxic to fish and aquatic invertebrates.

**Ecotoxicity:** 

Data on Fludioxonil Technical:

Bluegill 96-hour LC<sub>50</sub>:

0.74 ppm **Bo** 

Bobwhite Quail Oral LD<sub>50</sub>:

>5,200 ppm

Rainbow Trout 96-hour LC<sub>50</sub>:

0.47 ppm

Mallard Duck 8-day Dietary LC<sub>50</sub>:

>5,200 ppm

Daphnia 48-hour EC<sub>50</sub>:

0.90 ppm

Honey Bee Oral LD<sub>50</sub>:

> 25 ua/bee

#### **Environmental Fate:**

Fludioxonil, does not bioaccumulate, however it is persistent in soil and is stable in water. It has low mobility in soil. The material sinks in water (after 24 hours).

#### 13. DISPOSAL CONSIDERATIONS

#### Waste Disposal Method:

Open dumping is prohibited. Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility.

#### Container Handling and Disposal:

Bags: Nonrefillable container. Do not reuse or refill this container. Completely empty bag into manufacturing equipment. Offer for recycling if available or dispose of empty bag in a sanitary landfill or by incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.

**Fiber drums:** Nonrefillable container. Do not reuse or refill this container. Completely empty liner by shaking and tapping both sides and bottom to loosen clinging particles. Empty residue into manufacturing equipment. Then offer fiber drum and liner for recycling, if available.

**Plastic Drums:** Nonrefillable Container. Do not reuse or refill this container. Triple rinse or pressure rinse container (or equivalent) promptly after emptying. Then offer for recycling, if available, or puncture and dispose of in an approved sanitary landfill, or by incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.

Triple rinse containers with capacities equal to or less than 5 gallons or 50 lbs as follows: Empty the remaining contents in application equipment or a mix tank. Fill the container 1/4 full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times.

Triple rinse containers with capacities greater than 5 gallons or 50 lbs as follows: Empty the remaining contents into manufacturing equipment. Fill the container 1/4 full with water. Replace and tighten closures. Tip container on its side and roll it back and forth, ensuring at least one complete revolution, for 30 seconds. Stand the container on its end and tip it back and forth several times. Empty the rinsate into manufacturing equipment, or store rinsate for later use or disposal. Repeat this procedure two more times. **Pressure rinse as follows:** Empty the remaining contents into manufacturing equipment and drain for 10 seconds after the flow begins to drip. Hold container upside down over manufacturing equipment, or collect rinsate for later use or disposal. Insert pressure rinsing nozzle in the side of the container and rinse at about 40 PSI for at least 30 seconds. Drain for 10 seconds after the flow begins to drip.

#### 14. TRANSPORTATION INFORMATION

Follow the precautions indicated in Section 7: HANDLING AND STORAGE of this SDS.

#### DOT

UN 3077, Environmentally Hazardous Substance, Solid, N.O.S. (Fludioxonil), 9, PG III

#### IMDG

UN 3077, Environmentally Hazardous Substance, Solid, N.O.S. (Fludioxonil), 9, PG III, Marine Pollutant

#### IATA

UN 3077, Environmentally Hazardous Substance, Solid, N.O.S. (Fludioxonil), 9, PG III)

#### 15. REGULATORY INFORMATION

#### **EPA FIFRA INFORMATION**

This chemical is a pesticide product registered by the United States Environmental Protection Agency and is subject to certain labeling requirements under federal pesticide law. These requirements differ from the classification criteria and hazard information required for safety data sheets (SDS), and for workplace labels of non-pesticide chemicals. The hazard information required on the pesticide label is reproduced below. The pesticide label also includes other important information, including directions for use.

CAUTION. Harmful if inhaled or absorbed through skin. Avoid contact with eyes, skin, or clothing. Avoid breathing vapor or spray mist. Wash thoroughly with soap and water after handling. Remove contaminated clothing and wash before reuse.

#### U.S. FEDERAL REGULATIONS

TSCA Inventory: This product is exempted from TSCA because it is solely for FIFRA regulated use.

SARA Hazard Notification/Reporting:

Hazard Categories Under Criteria of SARA Title III Rules (40 CFR Part 370):

Not listed

Section 313 Toxic Chemical(s):

None

Reportable Quantity (RQ) under U.S. CERCLA:

None

**RCRA Waste Code:** 

Under RCRA, it is the responsibility of the product user to determine at the time of disposal, whether a material containing the product or derived from the product should be classified as a hazardous waste.

State Information:

Other state regulations may apply. Check individual state requirements.

California Proposition 65: Not Listed.

#### 16. OTHER INFORMATION

National Fire Protection Association (NFPA) Hazard Rating:

Rating for this product: Health: 1 Flammability: 1 Reactivity: 0

Hazards Scale: 0 = Minimal 1 = Slight 2 = Moderate 3 = Serious 4 = Severe

This Safety Data Sheet (SDS) serves different purposes than and DOES NOT REPLACE OR MODIFY THE EPA-ACCEPTED PRODUCT LABELING (attached to and accompanying the product container). This SDS provides important health, safety and environmental information for employers, employees, emergency responders and others handling large quantities of the product in activities generally other than product use, while the labeling provides that information specifically for product use in the ordinary course.

Use, storage and disposal of pesticide products are regulated by the EPA under the authority of the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) through the product labeling, and all necessary and appropriate precautionary, use, storage, and disposal information is set forth on that labeling. It is a violation of Federal law to use a pesticide product in any manner not prescribed on the EPA-accepted label.

Although the information and recommendations set forth herein (hereinafter "Information") are presented in good faith and believed to be correct as of the date hereof, Nufarm Americas Inc. makes no representations as to the completeness or accuracy thereof. Information is supplied upon the condition that the persons receiving same will make their own determination as to its suitability for their purposes prior to use. In no event will Nufarm Americas Inc. be responsible for damages of any nature whatsoever resulting from the use of or reliance upon Information. NO REPRESENTATIONS OR WARRANTIES, EITHER EXPRESS OR IMPLIED, OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE OR OF ANY OTHER NATURE ARE MADE HEREUNDER WITH RESPECT TO INFORMATION OR THE PRODUCT TO WHICH INFORMATION REFERS AND ALL SUCH WARRANTIES ARE HEREBY SPECIFICALLY DISCLAIMED.

Date of Issue:

February 9, 2015

Supersedes:

January 19, 2015



#### **United States**

OMB Control No. 2070-0020 Expires on 11/30/2016

## **ENVIRONMENTAL PROTECTION AGENCY**

## Washington, DC 20460

#### **Notice of Arrival of Pesticides and Devices**

Send Completed Form to Appropriate Regional Office Listed in the Instructions for this Form.

Note: Read Instructions before completing form.

	Davt '	I · To Ro Co	malatad by Impartar	of record or Licensed Customs	Prokor	
		· · · · · · · · · · · · · · · · · · ·				
1. Name and Complete	Address of	Licenced (	Customs Broker	2. Name and Complete Address	of Importer of Record	
Expeditors International Attn: Kim Caruso 849 Thomas Drive Bensenville, IL 60106 T:630-616-2318				Nufarm Americas Inc. 11901 South Austin Avenue Alsip, IL 60803 T: 708-377-1330		
X Return Form to this Address				Return to this Address		
3. Name and Complete	Address of	f Shipper		4. EPA Registration Number	5. EPA Producer Establishment No.	
Nutrichem Co., LTD	/ D	J		35935-92	88106-CHN-001	
Building D-1, No. 66 Xixiaokou Road Haidian District, Beijing 100192, P.R. China				6. Brand Name of Product Fludioxonil Technical		
110108777062155			1			
7. Active Ingredients a	nd Percent	age or Each				
Fludioxonil 99.0%						
8. Unit Size	9. Quantit	У	10. Total Net Weight	t 11. Country of Origin		
25 Kg Cartons	25 Kg Cartons   32   800 Kg			China		
12. Port of Entry				13. Name and Complete Address of Carrier		
Chicago Illinois				AMERICAN AIRLINES CARGO ON BOARD: AA186 AIR WAYBILL NUMBER 001-9252 5090		
14. Entry Number		15. Antici	pated Entry Date			
231-0274660-4		Septembe	r 8, 2015			
17. Location of Goods	for Examin	ation after l	mportation	16. I assert that information constituting Confidential Business Information is shown in the above blocks numbered: (Note: Blocks		
Nufarm Americas, Inc. I 1901 S Austin Ave Alsip, IL 60803 Phone: 708-377-1388				4, 5, 6 and 7 are not entitled to	CBl treatment—see instructions.)	
18. [Optional] For pesti processing of the Notic			Registration No., select	all that apply: (The following info	rmation may expedite the	
☐ 18a. A pesticide tra	nsferred be	tween regi	stered establishments o	operated by the same producer. I	Domestic Producer Establishment	
Number:						
18b. A pesticide tra	insferred be	etween regi	istered establishments	not operated by the same produc	cer. Domestic Producer Establish-	
ment Number:		E	PA Registration Numbe	er of Product being Formulated, it	fapplicable:	
18c. A pesticide dis	tributed ur	ider an Exp	erimental Use Permit.	Experimental Use Permit Number	:	



EPA Registration Number: 35935-92	Product Name: Fludioxonil Technical			
Total Net Weight: 800 Kg	Entry Number: 231-0274660-4			
18d. A Pesticide distributed for research and deve	lopment purposes without an Experime	ental Use Permit.	och mit protessionet sei er mannen	
18e. A pesticide transferred solely for export. Do	mestic Producer Establishment Number	•		
18f. A pesticide distributed under an emergency e	xemption. Emergency Exemption Nun	nber:		
18g. A pesticide transferred for the purposes of di	sposal.			
$\square$ 18h. Other. Provide an explanation including the i States in Block 19 $\stackrel{\cdot}{-}$ Remarks.	ntended use and a description of why t	he product is beir	ng impo	rted into the Unite
19. Remarks. Provide additional information here. It is the NOA.	s recommended that a copy of the labe	l affixed to the pr	oduct be	submitted with
AIR WAYBILL NUMBER 001-9252 5090				
THE WILLIAM STATE OF SELECTION				
	Certification			
I certify that the statements I made on this form an knowingly false or misleading statement I				
20. Printed Name of Importer of Record or Licensed Customs Broker Vic Sweetwood		Telephone No.:	708-37	7-1365
21. Signature of Importer of Record or Licensed Customs Broker:	neetwood		Date:	September 8, 2015
Part II: To Be Com	pleted by U.S. Environmental Protect	ion Agency		Survey and the survey
Action to be taken by U.S. Customs and Border Protection	ction:			
	Release shipment to consignee under binspection.	ond. Shipment m	ust be l	neld intact pending
Other. (Specify)				
Remarks:				
Signature and Title of EPA Official:	Mount on	$\sim$ $ $	Date: 9	110/15
	mpleted by U.S. Customs and Burder			<i>y</i> 1
The information shown in Part I was compared with was handled as instructed by EPA in Part II. Any dev				
Remarks:				
Signature of District Director of Customs:			Date:	

Paperwork Reduction Act Notice: The estimated average time to read the instructions and complete this form is 26 minutes. Send comments regarding the burden estimates or any other aspect of this collection of information to: Director, Collection Strategies Division, Office of Environmental Information (OEI), U.S. Environmental Protection Agency (Mail Code 2822), 1200 Pennsylvania Avenue, NW, Washington, DC 20460. Include OMB number 2070-0020 in any correspondence.

Page 2 of 4



## **FLUDIOXONIL TECHNICAL**

### FOR MANUFACTURING USE ONLY

ACTIVE INGREDIENT:	
Fludioxonil	99.0%
OTHER INGREDIENTS:	1.0%
TOTAL	100,0%

EPA Reg. No. 35935-92

EPA Est. No. 88106-CHN-001

# KEEP OUT OF REACH OF CHILDREN CAUTION

For Chemical Spill, Leak, Fire, or Exposure Call CHEMTREC (800) 424-9300 For Medical Emergencies Only Call (877) 325-1840

, 0	Institute and a second a second and a second a second and					
	FIRST AID					
IF IN EYES	<ul> <li>Hold eye open and rinse slowly and gently with water for 15 to 20 minutes.</li> <li>Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye.</li> <li>Call a poison control center or doctor for treatment advice.</li> </ul>					
IF ON SKIN OR CLOTHING	Take off contaminated clothing. Rhase skin immediately with plenty of water for 15 to 20 minutes. Call a poison control center or doctor for treatment advice.					
IF INHALED	Move person to fresh air.     If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible.     Call a poison control center or doctor for further treatment advice.					
IF SWALLOWED	<ul> <li>Call a poison control center or doctor immediately for treatment advice.</li> <li>Have person sip a glass of water if able to swallow.</li> <li>DO NOT induce vomitting unless told to do so by a poison control center or doctor.</li> <li>DO NOT give anything by mouth to an unconscious person.</li> </ul>					
HOT LINE NUMBER						
Have the produc	container or label with you when calling a poison control center					

#### PRECAUTIONARY STATEMENTS

or doctor, or going for treatment. You may also contact 1-877-325-1840 for

emergency medical treatment information.

HAZARDS TO HUMANS AND DOMESTIC ANIMALS CAUTION

Hamful if inhaled or absorbed through skin. Avoid contact with eyes, skin, or clothing. Avoid breathing vapor or spray mist. Wash thoroughly with soap and water after handling. Remove contaminated clothing and wash before reuse.

#### **ENVIRONMENTAL HAZARDS**

This product is toxic to fish and aquatic invertebrates. DO NOT discharge effluent containing this product into lakes, streams, ponds, estuaries, oceans, or other waters unless in accordance with the requirements of a National Pollutart Discharge Elimination System (NPDES) permit and the permitting authority has been notified in writing prior to discharge. DO NOT discharge effluent containing this product to sewer systems without previously notifying the local sewage treatment plant authority. For guidance contact your State Water Board or Regional Office of the EPA.

#### **DIRECTIONS FOR USE**

It is a violation of Federal law to use this product in a manner inconsistent with its labeling. This product is intended for the formulation of fungicide products. This product may be used to formulate products for specific use(s) not listed on the MP label if the formulator, user group, or grower has complied with the U.S. EPA data submission requirements regarding the support of such use(s).

## FOR MANUFACTURING USE ONLY INTO A FUNGICIDE FOR THE FOLLOWING

- 1. Seed Treatment Uses: Root and Tuber vegetables, Buib vegetables, Leafy vegetables, except Brassica vegetables, Brassica (Cole) leafy vegetables, Legume vegetables (succulent or dried), Fruiting vegetables (except cucurbits), Cucurbit vegetables, Cereal grains, Nongrass animal feeds (forage, fodder, straw, and hay), Herbs and Spices, Rape, Cotton, Peanut, Crambe, Flax, Jojoba, Lesquerella, Safflower, and Sunflower.
- 2. Post Harvest Uses: Citrus fruit group (Crop group 10), Kwi, Pome fruit group (Crop group 11), Pomegranate, Storie fruit group (Crop group 12), and Sweet potato.
- Terrestrial Nonfood Uses: Ornamentals grown in Interiorscapes, field nursery plantings, container nurseries, forest nurseries, residential and commercial landscapes, greenhouses, lath and shade frouses, or other enclosed structures; vegetables including seedlings and transplants grown in greenhouses, lath and shade houses, or other enclosed structures.
- Uses for which the US EPA has accepted the required data and/or citations of data that the formulator has submitted in support of registration; and
- 5. Uses for experimental purposes that are in compliance with US EPA requirements

#### STORAGE AND DISPOSAL

DO NOT conteminate water, food, or feed by storage and disposal

PESTICIDE STORAGE: Always use original container to store pesticides in a cool, dry secured warehouse or storage building. DO NOT store near food and feed. Containers should be opened in well-ventilated areas. Keep container tightly sealed when not in use.

PESTICIDE DISPOSAL: Open dumping is prohibited. Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility. CONTAINER HANDLING:

Plastic or Paper Bags: Nonrefiliable container. DO NOT reuse or refill this container. Completely empty bag into manufacturing equipment. Offer for recycling if available or dispose of empty bag in a sanitary landfill or by incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke

#### WARRANTY DISCLAIMER AND LIMITATION OF LIABILITY

The directions for use of this product must be followed carefully. TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, (1) THE GOODS DELIVERED TO YOU ARE FURNISHED "AS IS" BY MANUFACTURER OR SELLER AND (2) MANUFACTURER AND SELLER MAKE NO WARRANTIES, GUARANTEES, OR REPRESENTATIONS OF ANY KIND TO BUYER OR USER, EITHER EXPRESS OR IMPLIED, OR BY USAGE OF TRADE, STATUTORY OR OTHERWISE, WITH REGARD TO THE PRODUCT SOLD, INCLUDING, BUT NOT LIMITED TO MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, USE, OR ELIGIBILITY OF THE PRODUCT FOR ANY PARTICULAR TRADE USAGE. TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, BUYERS OR USER'S EXCLUSIVE REMIEDY, AND MANUFACTURER'S OR SELLER'S TOTAL LIABILITY SHALL BE FOR DAMAGES NOT EXCEEDING THE COST OF THE PRODUCT.

If you do not agree with or do not accept any of the directions for use, the warranty disclaimers, or limitations on liability, do not use the product, and return it unopened to the Seller, and the purchase price will be refunded.

RV051115

MADE IN CHINA

NET WEIGHT: 55.1 LBS (25 KG)

Manufactured for: NUFARM LIMITED 4020 Aerial Center Parkway, Sulte 101 Morrisville, NC 27560





#### 1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Name:

Fludioxonil Technical

EPA Reg. No.:

35935-92

**Product Type:** 

Fungicide - For Manufacturing Use Only

Company Name:

Nufarm Limited.

4020 Aerial Center Parkway Morrisville, NC 27560 1-800-345-3330

Telephone Numbers: For Chemical Emergency, Spill, Leak, Fire, Exposure, or Accident,

Call CHEMTREC Day or Night: 1-800-424-9300 For Medical Emergencies Only, Call 1-877-325-1840

This product is an EPA FIFRA registered pesticide. Some classifications on this SDS are not the same as on the FIFRA label. Certain sections are superseded by federal law governed by EPA for a registered pesticide. Please see Section 15. REGULATORY INFORMATION for explanation.

#### 2. HAZARDS IDENTIFICATION

#### **HEALTH HAZARDS:**

Acute toxicity, inhalation

Category 4

Specific target organ toxicity - Repeated exposure

Category 2

#### **ENVIRONMENTAL HAZARDS:**

Hazardous to aquatic environment, acute

Category 1

Hazardous to aquatic environment, chronic

Category 1

#### SIGNAL WORD:

WARNING

#### HAZARD STATEMENTS:

Harmful if inhaled. May cause damage to organs (liver, kidney) through prolonged or repeated exposure. Very toxic to aquatic life with long lasting effects.





#### PRECAUTIONARY STATEMENTS

Do not breathe dust, fumes, gas, mist, vapors or spray. Use only outdoors or in a well-ventilated area. Call a poison control center or doctor if you feel unwell. If exposed or concerned: Call a poison center/doctor. See Section 4 First Aid and label instructions for emergency medical advice. Get medical advice/attention if you feel unwell.

Do not eat, drink, or smoke when using this product.

Respiratory protection not normally required. If dusts exceed acceptable levels, wear NIOSH approved airpurifying respirator with cartridges/canisters approved for use against pesticides. Get medical advice/attention if you feel unwell.

Dispose of contents/container in accordance with state and federal regulations. See Section 13 and product label for disposal instructions.

#### 3. COMPOSITION / INFORMATION ON INGREDIENTS

**COMPONENTS** 

CAS NO.

% BY WEIGHT

#### Fludioxonil Technical

Fludioxonil
Proprietary process related impurities

131341-86-1 Trade Secret 95.06 - 100 Trade Secret

Synonyms:

4-(2,2-difluoro-1,3-benzodioxol-4-yl)-1H-pyrrole-3-carbonitrile

Ingredients not precisely identified are proprietary or non-hazardous. Values are not product specifications

#### 4. FIRST AID MEASURES

If on Skin or Clothing: Take off contaminated clothing. Rinse skin immediately with plenty of water for 15 to 20 minutes. Call a poison control center or doctor for treatment advice.

**If Swallowed:** Call a poison control center or doctor immediately for treatment advice. Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by the poison control center or doctor. Do not give anything by mouth to an unconscious person.

If in Eyes: Hold eye open and rinse slowly and gently with water for 15 to 20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a poison control center or doctor for treatment advice.

If Inhaled: Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible. Call a poison control center or doctor for further treatment advice.

Most Important symptoms/effects: Dermal irritation, Respiratory irritation

Indication of Immediate medical attention and special treatment if needed: For ingestion there is no specific antidote available. Treat symptomatically.

#### 5. FIRE FIGHTING MEASURES

**Extinguishing Media:** Recommended for large fires: alcohol-resistant foam, dry chemical, water spray, or carbon dioxide. Recommended for small fires: dry chemical or carbon dioxide.

**Special Fire Fighting Procedures:** Firefighters should wear NIOSH/MSHA approved self-contained breathing apparatus and full fire-fighting turn out gear. Toxic, irritating vapors may be formed if product is involved in a fire. Dike area to prevent runoff and contamination of water sources. Dispose of fire control water later.

Unusual Fire and Explosion Hazards: Avoid generating dust; fine dust dispersed in air in sufficient concentrations, and in the presence of an ignition source, is a potential dust explosion hazard. If water is used to fight fire, contain runoff, using dikes to prevent contamination of water supplies. Dispose of fire control water later.

Hazardous Decomposition Materials (Under Fire Conditions): May produce gases such as hydrogen chloride, hydrogen fluoride, oxides and nitrogen.

#### 6. ACCIDENTAL RELEASE MEASURES

**Personal Precautions:** Wear appropriate protective gear for the situation. See Personal Protection information in Section 8.

**Environmental Precautions:** Prevent material from entering public sewer systems or any waterways. Do not flush to drain. Large spills to soil or similar surfaces may necessitate removal of topsoil. The affected area should be removed and placed in an appropriate container for disposal.

Methods for Containment: Dike spill using absorbent or impervious materials such as earth, sand or clay. Collect and contain contaminated absorbent and dike material for disposal.

**Methods for Cleanup and Disposal:** Avoid creation of dusty conditions. If dry, sweep or scoop up material and place into container for disposal. If wet, pump any free liquid into an appropriate closed container. Decontaminate tools and equipment following cleanup. See Section 13: DISPOSAL CONSIDERATIONS for more information.

**Other Information:** Dust deposits should not be allowed to accumulate on surfaces, as these may form an explosive mixture if they are released into the atmosphere in sufficient concentration.

Avoid dispersal of dust in the air (i.e., clearing dust surfaces with compressed air).

Large spills may be reportable to the National Response Center (800-424-8802) and to state and/or local agencies.

#### 7. HANDLING AND STORAGE

#### HANDLING:

Minimize dust generation and accumulation. Routine housekeeping should be instituted to ensure that dusts do not accumulate on surfaces. Dry powders can build static electricity charges when subjected to the friction of transfer and mixing operations. Provide adequate precautions, such as electrical grounding and bonding, or inert atmospheres.

Avoid contact with eyes, skin or clothing. Avoid breathing dust. Users should wash hands before eating, drinking, chewing gum, using tobacco or using the toilet. Remove clothing/Personal Protective Equipment (PPE) immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing. Remove Personal Protective Equipment (PPE) immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

Always use original container to store pesticides in a cool, dry secured warehouse or storage building. Do not store near food and feed. Containers should be opened in well-ventilated areas. Keep container tightly sealed when not in use. Do not contaminate water, food or feed by storage or disposal.

#### 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

#### **Engineering Controls:**

Where engineering controls are indicated by specific use conditions or a potential for excessive exposure, use local exhaust ventilation at the point of generation.

Ensure that dust-handling systems (such as exhaust ducts, dust collectors, vessels, and processing equipment) are designed in a manner to prevent the escape of dust into the work area (i.e., there is no leakage from the equipment).

#### Personal Protective Equipment:

Eye/Face Protection: To avoid contact with eyes, wear chemical goggles or shielded safety glasses. emergency eyewash or water supply should be readily accessible to the work area.

Skin Protection: To avoid contact with skin wear long-sleeved shirt and long pants, shoes, socks, and chemical resistant gloves. An emergency shower or water supply should be readily accessible to the work area.

Respiratory Protection: Not normally required. If dusts exceed acceptable levels, wear NIOSH approved airpurifying respirator with cartridges/canisters approved for use against pesticides.

General Hygiene Considerations: Personal hygiene is an important work practice exposure control measure and the following general measures should be taken when working with or handling this material: 1) do not store, use and/or consume foods, beverages, tobacco products, or cosmetics in areas where this material is stored: 2) wash hands and face carefully before eating, drinking, using tobacco, applying cosmetics or using the toilet.

#### **Exposure Guidelines:**

	05	OSHA		ACGIH	
Component	TWA	STEL	TWA	STEL	Unit
Fludioxonil	NE	NE	NE	NE	
Proprietary process impurities	N/A	N/A	N/A	N/A	

NE = Not Established N/A= Not Applicable

#### 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance:

Green-beige to faintly yellow solid powder

Odor:

Odorless

Odor threshold:

No data available

:Ha

6-8

Melting point/freezing point:

199.8 - 200.1° C No data available

Initial boiling point and boiling range

Not applicable

Flash point: Evaporation rate:

Not applicable

Flammability (solid, gas):

No data available

Upper/lower flammability or explosive limits:

No data available

#### Fludioxonil Technical

Vapor pressure: Vapor density:

3.9 x 10<sup>-4</sup> mPa (25° C) No data available

Relative density: Solubility(ies):

1.49 @ 20° C 1.39 ma/ml

Partition coefficient: n-octanol/water:

2.95

Autoignition temperature:

No data available No data available

Decomposition temperature:

Viscosity:

No data available

Note: Physical data are typical values, but may vary from sample to sample. A typical value should not be construed as a guaranteed analysis or as a specification.

#### 10. STABILITY AND REACTIVITY

Reactivity: Not reactive

Chemical Stability: This material is stable under normal handling and storage conditions.

Possibility of Hazardous Reactions: Will not occur.

Conditions to Avoid: Keep away from heat, sparks and open flame. Minimize dust generate and accumulation.

Incompatible Materials: Strong oxidizing agents: bases and acids.

Hazardous Decomposition Products: Under fire conditions may produce gases such as hydrogen chloride, hydrogen fluoride, oxides and nitrogen.

#### 11. TOXICOLOGICAL INFORMATION

Likely Routes of Exposure: Dermal contact, Inhalation

Symptoms of Exposure: Dermal irritation, Respiratory inhalation

Delayed, immediate and chronic effects of exposure: Dermal irritation, Respiratory inhalation

Toxicological Data:

Data from laboratory studies conducted on Fludioxonil Technical:

Oral: Rat LD50: >5,000 mg/kg

Dermal: Rabbit LD<sub>50</sub>: >2,000 mg/kg Inhalation: Rat 4-hr LC<sub>50</sub>: > 2.6 mg/L Eve Irritation: Rabbit: Slightly irritating Skin Irritation: Rabbit: Non irritating

Skin Sensitization: Not a contact sensitizer in guinea pigs following repeated skin exposure.

Subchronic (Target Organ) Effects: Repeated overexposure to fludioxonil may cause effects in the kidney and liver.

Carcinogenicity / Chronic Health Effects: Fludioxonil did not cause cancer in laboratory animals. EPA has classified fludioxonil as a Group D chemical - not classifiable as to human carcinogencity.

Reproductive Toxicity: In animal studies, Fludioxonil has been shown not to interfere with reproduction.

Developmental Toxicity: Fludioxonil did not cause birth defects in animals.

Genotoxicity: In vitro bacterial assays and animal tests with fludioxonil did not demonstrate mutagenic effects.

Assessment Carcinogenicity: None listed with ACGIH, IARC, NTP or OSHA.

#### 12. ECOLOGICAL INFORMATION

#### Environmental Hazards:

This product is toxic to fish and aquatic invertebrates.

**Ecotoxicity:** 

Data on Fludioxonil Technical:

Bobwhite Quail Oral LD<sub>50</sub>: >5,200 ppm Bluegill 96-hour LC<sub>50</sub>: 0.74 ppm >5,200 ppm 0.47 ppm Mallard Duck 8-day Dietary LC<sub>50</sub>: Rainbow Trout 96-hour LC<sub>50</sub>: Honey Bee Oral LD<sub>50</sub>: > 25 µg/bee Daphnia 48-hour EC<sub>50</sub>: 0.90 ppm

**Environmental Fate:** 

Fludioxonil, does not bioaccumulate, however it is persistent in soil and is stable in water. It has low mobility in soil. The material sinks in water (after 24 hours).

#### 13. DISPOSAL CONSIDERATIONS

#### Waste Disposal Method:

Open dumping is prohibited. Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility.

#### Container Handling and Disposal:

Bags: Nonrefillable container. Do not reuse or refill this container. Completely empty bag into manufacturing equipment. Offer for recycling if available or dispose of empty bag in a sanitary landfill or by incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.

**Fiber drums:** Nonrefillable container. Do not reuse or refill this container. Completely empty liner by shaking and tapping both sides and bottom to loosen clinging particles. Empty residue into manufacturing equipment. Then offer fiber drum and liner for recycling, if available.

Plastic Drums: Nonrefillable Container. Do not reuse or refill this container. Triple rinse or pressure rinse container (or equivalent) promptly after emptying. Then offer for recycling, if available, or puncture and dispose of in an approved sanitary landfill, or by incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.

Triple rinse containers with capacities equal to or less than 5 gallons or 50 lbs as follows: Empty the remaining contents in application equipment or a mix tank. Fill the container 1/4 full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times.

Triple rinse containers with capacities greater than 5 gallons or 50 lbs as follows: Empty the remaining contents into manufacturing equipment. Fill the container 1/4 full with water. Replace and tighten closures. Tip container on its side and roll it back and forth, ensuring at least one complete revolution, for 30 seconds. Stand the container on its end and tip it back and forth several times. Empty the rinsate into manufacturing equipment, or store rinsate for later use or disposal. Repeat this procedure two more times. Pressure rinse as follows: Empty the remaining contents into manufacturing equipment and drain for 10 seconds after the flow begins to drip. Hold container upside down over manufacturing equipment, or collect rinsate for later use or disposal. Insert pressure rinsing nozzle in the side of the container and rinse at about 40 PSI for at least 30 seconds. Drain for 10 seconds after the flow begins to drip.

#### 14. TRANSPORTATION INFORMATION

Follow the precautions indicated in Section 7: HANDLING AND STORAGE of this SDS.

#### DOT

#### < 882 pounds per completed package:

Not regulated by DOT unless shipped by water. See IMO / IMDG description.

#### ≥ 882 pounds per completed package:

UN3077, Environmentally hazardous substance, solid, n.o.s., (Fludioxonil), 9, III, Marine Pollutant

#### IMO / IMDG

UN3077, Environmentally hazardous substance, solid, n.o.s., (Fludioxonil), 9, III, Marine Pollutant

#### IATA

Not regulated

#### 15. REGULATORY INFORMATION

#### **EPA FIFRA INFORMATION**

This chemical is a pesticide product registered by the United States Environmental Protection Agency and is subject to certain labeling requirements under federal pesticide law. These requirements differ from the classification criteria and hazard information required for safety data sheets (SDS), and for workplace labels of non-pesticide chemicals. The hazard information required on the pesticide label is reproduced below. The pesticide label also includes other important information, including directions for use.

#### Fludioxonil Technical

CAUTION. Harmful if inhaled or absorbed through skin. Avoid contact with eyes, skin, or clothing. Avoid breathing vapor or spray mist. Wash thoroughly with soap and water after handling. Remove contaminated clothing and wash before reuse.

#### U.S. FEDERAL REGULATIONS

TSCA Inventory: This product is exempted from TSCA because it is solely for FIFRA regulated use.

SARA Hazard Notification/Reporting:

Hazard Categories Under Criteria of SARA Title III Rules (40 CFR Part 370):

Not listed

Section 313 Toxic Chemical(s):

None

Reportable Quantity (RQ) under U.S. CERCLA:

None

RCRA Waste Code:

Under RCRA, it is the responsibility of the product user to determine at the time of disposal, whether a material containing the product or derived from the product should be classified as a hazardous waste.

State Information:

Other state regulations may apply. Check individual state requirements.

California Proposition 65: Not Listed.

#### 16. OTHER INFORMATION

National Fire Protection Association (NFPA) Hazard Rating:

Rating for this product: Health: 1 Flammability: 1 Reactivity: 0

Hazards Scale: 0 = Minimal 1 = Slight 2 = Moderate 3 = Serious 4 = Severe

This Safety Data Sheet (SDS) serves different purposes than and DOES NOT REPLACE OR MODIFY THE EPA-ACCEPTED PRODUCT LABELING (attached to and accompanying the product container). This SDS provides important health, safety and environmental information for employers, employees, emergency responders and others handling large quantities of the product in activities generally other than product use, while the labeling provides that information specifically for product use in the ordinary course.

Use, storage and disposal of pesticide products are regulated by the EPA under the authority of the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) through the product labeling, and all necessary and appropriate precautionary, use, storage, and disposal information is set forth on that labeling. It is a violation of Federal law to use a pesticide product in any manner not prescribed on the EPA-accepted label.

Although the information and recommendations set forth herein (hereinafter "Information") are presented in good faith and believed to be correct as of the date hereof, Nufarm Americas Inc. makes no representations as to the completeness or accuracy thereof. Information is supplied upon the condition that the persons receiving same will make their own determination as to its suitability for their purposes prior to use. In no event will Nufarm Americas Inc. be responsible for damages of any nature whatsoever resulting from the use of or reliance upon Information. NO REPRESENTATIONS OR WARRANTIES, EITHER EXPRESS OR IMPLIED, OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE OR OF ANY OTHER NATURE ARE MADE HEREUNDER WITH RESPECT TO INFORMATION OR THE PRODUCT TO WHICH INFORMATION REFERS AND ALL SUCH WARRANTIES ARE HEREBY SPECIFICALLY DISCLAIMED.

Date of Issue:

May 29, 2015

Supersedes:

February 9, 2015



#### **United States**

OMB Control No. 2070-0020 Expires on 11/30/2016

# **ENVIRONMENTAL PROTECTION AGENCY**

## Washington, DC 20460

# **Notice of Arrival of Pesticides and Devices**

Send Completed Form to Appropriate Regional Office Listed in the Instructions for this Form. Note: Read Instructions before completing form.

	-				fore completing form.				
	Part 1: 7	To Be Com	pleted by Importer	of	record or Licensed Customs I	Broker			
Name and Complete Address of Licenced Customs Broker				2. Name and Complete Address of Importer of Record					
Expeditors International Attn: Kristen Karg  349 Thomas Drive  Bensenville, IL 60106 T:630-616-2318				1	Nufarm Americas Inc. 11901 South Austin Avenue Alsip, IL 60803 T: 708-377-1330				
To this Address				Return to this Address					
Return Form to this Address				-	4. EPA Registration Number	5. EPA Producer Establishment No.			
3. Name and Complete Address of Shipper				$\left  \left  \right  \right $	35935-92	88106-CHN-001			
Nutrichem Co., LTD Building D-1, No. 66 Xixiaokou Road					6. Brand Name of Product				
Haidian District, Beijing 100192, P.R. China 110108777062155					Fludioxonil Technical				
7. Active Ingredients ar	nd Percenta	ge of Each							
Fludioxonil 99.0%									
8. Unit Size	9. Quantit	у	10. Total Net Weight	at 11. Country of Origin					
25 Kg Cartons	40	1,000 Kg			China				
12. Port of Entry	\\ <u>\</u>				13. Name and Complete Address of Carrier				
Chicago Illinois					AMERICAN AIRLINES CA	RGO			
14. Entry Number		15. Antic	ipated Entry Date	ON BOARD: AA186 AIR WAYBILL NUMBER 001-9252 5123					
		l [	October 21, 2015		AIR WAYBILL NOWIDER OUT 7222 2122				
231-0289267-1 October 21, 2015  17. Location of Goods for Examination after Importation					16. I assert that information constituting Confidential Business Information is shown in the above blocks numbered: (Note: Block 4, 5, 6 and 7 are not entitled to CBI treatment—see instructions.)				
Nufarm Americas, Inc. 11901 S Austin Ave Alsip, IL 60803 Phone: 708-377-1388					avandita the				
18. [Optional] For perprocessing of the No	sticides with tice of Arriv ransferred b	nout an EP al.) between re	A Registration No., sel egistered establishme	eci nt:	t all that apply: (The following is operated by the same produc	information may expedite the cer. Domestic Producer Establishmen			
3						oducer. Domestic Producer Establish			
1	transferred	between r	egistered establishine FPA Registration Nu	ım <sup>l</sup>	ber of Product being Formulat	ed, if applicable:			
ment Number:	المحدد والاراد ال	undor an F	- Experimental Use Pern	nit	Experimental Use Permit Nu	mber:			
18c. A pesticide	oistributed	unuer arr	orberta -			Page 1 of 4			

PA Registration Number: 35935-92	Product Name: Fludioxonil Technical			
otal Net Weight: 1,000 Kg	Entry Number: 231-0289267-1			
magakimamining salah salam salah	amay tamina kang 1900 na mang 1900 na 1900 ng 1900 na 1900	h-III co Dormit	- O La Disciplina de la Companya de Compan	
] 18d. A Pesticide distributed for research and c	levelopment purposes without an Experimen	tal use Pennic.		
18e. A pesticide transferred solely for export.	Domestic Producer Establishment Number.	ner.		
] 18f. A pesticide distributed under an emerger				
] 18g. A pesticide transferred for the purposes and 18h. Other. Provide an explanation including	of disposal.  the intended use and a description of why th	e product is being	g import	ted into the United
Ctator in Block 19 - Bemarks:				
19. Remarks. Provide additional information her	e. It is recommended that a copy of the label	affixed to the pro	duct be	submitted with
the NOA.				
AIR WAYBILL NUMBER 001-9252 5123				
AIR WITHIE TO LEAST				
I certify that the statements I made on this fo	Certification	rate and complete	e. I ackn	owledge that any
I certify that the statements I made on this to knowingly false or misleading stater	ment may be punishable by fine or imprisonn	ent or both unde	r applic	able law.
as B :		Telephone No.:		
Record or Licensed Customs Broker Vic Sweet	wood	Telephone Hon		
21. Signature of Importer of Record or Licensed Customs Broker:		Date:	October 21, 2015	
Part II: To Be	Completed by U.S. Environmental Protect	ion Agency		-
Action to be taken by U.S. Customs and Border	Protection:	-		و مناه من من من الله الله
Release Shipment Detain for inspection	Release shinment to consignee under b	oond. Shipment n	nust be l	neld intact pending
Other. (Specify)				
Remarks:				
·	,			
11/11/		7		\$
Signature and Title	1. amount Cla	/ .	Date:	0/03/15
of EPA Official	WWW Jak	Protection		<del></del>
	Be Completed by U.S. Customs and Border	d no discrepancie	es were	noted. The shipme
The information shown in Part I was compar was handled as instructed by EPA in Part II. A	ny deviations snould be brought to the atten	tion of EPA befor	e releasi	ing the shipment a
	should be noted in "Remarks."			
Remarks:				
Signature of District			Date:	
Director of Customs:	_			

Paperwork Reduction Act Notice: The estimated average time to read the instructions and complete this form is 26 minutes. Send comments regarding the burden estimates or any other aspect of this collection of information to: Director, Collection Strategies Division, Office of Environmental Information (OEI), U.S. Environmental Protection Agency (Mail Code 2822), 1200 Pennsylvania Avenue, NW, Washington, DC 20460. Include OMB number 2070-0020 in any correspondence.

# FLUDIOXONIL TECHNICAL

## FOR MANUFACTURING USE ONLY

#### ACTIVE INGREDIENT: Fludioxonil.. OTHER INGREDIENTS:

EPA Reg. No. 35935-92

EPA Est No. 88106-CHN-001

## KEEP OUT OF REACH OF CHILDREN **CAUTION**

For Chemical Spill, Leak, Fire, or Exposure Call CHEMTREC (800) 424-9300 For Medical Emergencies Only Call (877) 325-1840

For	Medical Emergencies Only Call (877) 325-1840				
FIPST AID					
IF IN EYES	Hold eye open and rinse slowly and gently with water for 15 to 20 minutes.     Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye.     Call a poison control center or doctor for treatment advice.				
IF ON SKIN OR CLOTHING	Take off contaminated clothing. Rinse skin immediately with plenty of water for 15 to 20 minutes. Call a poison control center or doctor for treatment advice.				
IF INHALED	Move person to fresh air.     If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible.     Call a poison control center or doctor for further treatment advice.				
IF SWALLOWED	advice. Call a poison control center or doctor immediately for treatment advice. Have person sip a glass of water if able to swallow. DO NOT induce vomiting unless told to do so by a poison control center or doctor. DO NOT give anything by mouth to an unconscious person.				
HOT LINE NUMBER					

Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact 1-877-325-1840 for emergency medical treatment information.

## PRECAUTIONARY STATEMENTS

HAZARDS TO HUMANS AND DOMESTIC ANIMALS

Harmful if inhaled or absorbed through skin. Avoid contact with eyes, skin, or clothing. Avoid breathing vapor or spray mist. Wash thoroughly with soap and water after handling. Remove contaminated clothing and wash before reuse.

#### ENVIRONMENTAL HAZARDS

This product is toxic to fish and aquatic invertebrates. DO NOT discharge effluent containing this product into takes, streams, ponds, estuaries, oceans, or other waters unless in accordance with the requirements of a National Pollutant Discharge Elimination System (NPDES) permit and the permitting authority has been notified in writing prior to discharge. DO NOT discharge effluent containing this product to sewer systems without previously notifying the local sewage treatment plant authority. For guidance contact your State Water Board or Regional Office of the EPA.

## DIRECTIONS FOR USE

It is a violation of Federal law to use this product in a manner inconsistent with its labeling. This product is intended for the formulation of fungicide products. This product may be used to formulate products for specific use(s) not listed on the MP label if the formulator, user group, or grower has complied with the U.S. EPA data submission requirements regarding the support of such use(s).

#### FOR MANUFACTURING USE ONLY INTO A FUNGICIDE FOR THE FOLLOWING USES:

- 1. Seed Treatment Uses: Root and Tuber vegetables, Bulb vegetables, Leafy vegetables, except Brassica vegetables, Brassica (Cole) leafy vegetables, Legume vegetables (succulent or dried), Fruiting vegetables (except cucurbits), Cucurbit vegetables, Cereal grains, Nongrass animal feeds (forage, fodder, straw, and hay), Herbs and Spices, Rape, Cotton, Peanut, Crambe, Flax, Jojoba, Lesquerella, Saffiower, and Sunflower.
- 2. Post Harvest Uses: Citrus truit group (Crop group 10), Kiwi, Pome fruit group (Crop group 11), Pomegranate, Stone fruit group (Crop group 12), and Sweet potato.
- 3. Terrestrial Nonfood Uses: Omarmentals grown in interiorscapes, field nursery plantings, container nurseries, forest nurseries, residential and commercial landscapes, greenhouses, lath and shade houses, or other enclosed structures; vegetables including seedlings and transplants grown in greenhouses, lath and shade houses, or other enclosed
- 4. Uses for which the US EPA has accepted the required data and/or citations of data that the formulator has submitted in support of registration; and
- 5. Uses for experimental purposes that are in compliance with US EPA requirements

MADE IN CHINA

NET WEIGHT: 55.1 LBS (25 KG)

Manufactured for: NUFARM LIMITED 4020 Aerial Center Parkway, Suite 101 Montsville, NC 27560

## STORAGE AND DISPOSAL

DO NOT contaminate water, food, or feed by storage and disposal.

PESTICIDE STORAGE: Always use original container to store pesticides in a cool, dry secured warehouse or storage building. DO NOT store near food and feed. Containers should be opened in well-ventilated areas. Keep container tightly sealed when not in

PESTICIDE DISPOSAL: Open dumping is prohibited. Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility. CONTAINER HANDLING:

Plastic or Paper Bags: Nonretillable container. DO NOT reuse or refill this container. Completely empty bag into manufacturing equipment, Offer for recycling if available or dispose of empty bag in a sanitary landfill or by incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke

## WARRANTY DISCLAIMER AND LIMITATION OF LIABILITY

The directions for use of this product must be followed carefully. TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, (1) THE GOODS DELIVERED TO YOU ARE FURNISHED "AS IS" BY MANUFACTURER OR SELLER AND (2) MANUFACTURER AND SELLER MAKE NO WARRANTIES, GUARANTEES, OR REPRESENTATIONS OF ANY KIND TO BUYER OR USER, EITHER EXPRESS OR IMPLIED, OR BY USAGE OF TRADE, STATUTORY OR OTHERWISE, WITH REGARD TO THE PRODUCT SOLD, INCLUDING, BUT NOT LIMITED TO MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, USE, OR ELIGIBILITY OF THE PRODUCT FOR ANY PARTICULAR TRADE USAGE, TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, BUYER'S OR USER'S EXCLUSIVE REMEDY, AND MANUFACTURER'S OR SELLER'S TOTAL LIABILITY SHALL BE FOR DAMAGES NOT EXCEEDING THE COST OF THE PRODUCT.

If you do not agree with or do not accept any of the directions for use, the warranty disclaimers, or limitations on tiability, do not use the product, and return it unopened to the Seller, and the purchase price will be refunded. RV051115



# 1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Name:

Fludioxonil Technical

EPA Reg. No.: Product Type: 35935-92 Fungicide - For Manufacturing Use Only

Company Name:

Nufarm Limited.

4020 Aerial Center Parkway

Morrisville, NC 27560 1-800-345-3330

Telephone Numbers: For Chemical Emergency, Spill, Leak, Fire, Exposure, or Accident,

Call CHEMTREC Day or Night: 1-800-424-9300 For Medical Emergencies Only, Call 1-877-325-1840

This product is an EPA FIFRA registered pesticide. Some classifications on this SDS are not the same as on the FIFRA label. Certain sections are superseded by federal law governed by EPA for a registered pesticide. Please see Section 15. REGULATORY INFORMATION for explanation.

## 2. HAZARDS IDENTIFICATION

### **HEALTH HAZARDS:**

Acute toxicity, inhalation

Category 4

Specific target organ toxicity - Repeated exposure

Category 2

## ENVIRONMENTAL HAZARDS:

Hazardous to aquatic environment, acute Hazardous to aquatic environment, chronic Category 1

Category 1

## SIGNAL WORD:

WARNING

Harmful if inhaled. May cause damage to organs (liver, kidney) through prolonged or repeated exposure. Very toxic to aquatic life with long lasting effects.





Do not breathe dust, fumes, gas, mist, vapors or spray. Use only outdoors or in a well-ventilated area. Call a PRECAUTIONARY STATEMENTS poison control center or doctor if you feel unwell. If exposed or concerned: Call a poison center/doctor. See Section 4 First Aid and label instructions for emergency medical advice. Get medical advice/attention if you feel unwell.

Do not eat, drink, or smoke when using this product.

Respiratory protection not normally required. If dusts exceed acceptable levels, wear NIOSH approved airpurifying respirator with cartridges/canisters approved for use against pesticides. Get medical advice/attention if you feel unwell.

Dispose of contents/container in accordance with state and federal regulations. See Section 13 and product label for disposal instructions.

## 3. COMPOSITION / INFORMATION ON INGREDIENTS

COMPONENTS

CAS NO.

% BY WEIGHT

## Fludioxonil Technical

Fludioxonil Proprietary process related impurities

131341-86-1 Trade Secret

95.06 - 100 Trade Secret

Synonyms:

4-(2,2-diffuoro-1,3-benzodioxol-4-yl)-1H-pyrrole-3-carbonitrile

Ingredients not precisely identified are proprietary or non-hazardous. Values are not product specifications

## 4. FIRST AID MEASURES

If on Skin or Clothing: Take off contaminated clothing. Rinse skin immediately with plenty of water for 15 to 20 minutes. Call a poison control center or doctor for treatment advice.

If Swallowed: Call a poison control center or doctor immediately for treatment advice. Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by the poison control center or doctor. Do not

If in Eyes: Hold eye open and rinse slowly and gently with water for 15 to 20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a poison control center or doctor for treatment

If Inhaled: Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible. Call a poison control center or doctor for further treatment

Most Important symptoms/effects: Dermal irritation, Respiratory irritation

Indication of Immediate medical attention and special treatment if needed: For ingestion there is no specific

## 5. FIRE FIGHTING MEASURES

Extinguishing Media: Recommended for large fires: alcohol-resistant foam, dry chemical, water spray, or carbon dioxide. Recommended for small fires: dry chemical or carbon dioxide.

Special Fire Fighting Procedures: Firefighters should wear NIOSH/MSHA approved self-contained breathing apparatus and full fire-fighting turn out gear. Toxic, irritating vapors may be formed if product is involved in a fire. Dike area to prevent runoff and contamination of water sources. Dispose of fire control water later.

Unusual Fire and Explosion Hazards: Avoid generating dust; fine dust dispersed in air in sufficient concentrations, and in the presence of an ignition source, is a potential dust explosion hazard. If water is used to fight fire, contain runoff, using dikes to prevent contamination of water supplies. Dispose of fire control water later. Hazardous Decomposition Materials (Under Fire Conditions): May produce gases such as hydrogen chloride,

## 6. ACCIDENTAL RELEASE MEASURES

Personal Precautions: Wear appropriate protective gear for the situation. See Personal Protection information in

Environmental Precautions: Prevent material from entering public sewer systems or any waterways. Do not flush to drain. Large spills to soil or similar surfaces may necessitate removal of topsoil. The affected area should be removed and placed in an appropriate container for disposal.

Methods for Containment: Dike spill using absorbent or impervious materials such as earth, sand or clay. Collect and contain contaminated absorbent and dike material for disposal.

Methods for Cleanup and Disposal: Avoid creation of dusty conditions. If dry, sweep or scoop up material and place into container for disposal. If wet, pump any free liquid into an appropriate closed container. Decontaminate tools and equipment following cleanup. See Section 13: DISPOSAL CONSIDERATIONS for more information. Other Information: Dust deposits should not be allowed to accumulate on surfaces, as these may form an

explosive mixture if they are released into the atmosphere in sufficient concentration.

Avoid dispersal of dust in the air (i.e., clearing dust surfaces with compressed air).

Large spills may be reportable to the National Response Center (800-424-8802) and to state and/or local

### 7. HANDLING AND STORAGE

Minimize dust generation and accumulation. Routine housekeeping should be instituted to ensure that dusts do not accumulate on surfaces. Dry powders can build static electricity charges when subjected to the friction of transfer and mixing operations. Provide adequate precautions, such as electrical grounding and bonding, or inert atmospheres.

Avoid contact with eyes, skin or clothing. Avoid breathing dust. Users should wash hands before eating, drinking, chewing gum, using tobacco or using the toilet. Remove clothing/Personal Protective Equipment (PPE) immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing. Remove Personal Protective Equipment (PPE) immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

Always use original container to store pesticides in a cool, dry secured warehouse or storage building. Do not store near food and feed. Containers should be opened in well-ventilated areas. Keep container tightly sealed when not in use. Do not contaminate water, food or feed by storage or disposal.

## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Where engineering controls are indicated by specific use conditions or a potential for excessive exposure, use local exhaust ventilation at the point of generation.

Ensure that dust-handling systems (such as exhaust ducts, dust collectors, vessels, and processing equipment) are designed in a manner to prevent the escape of dust into the work area (i.e., there is no leakage from the equipment).

Personal Protective Equipment:

Eye/Face Protection: To avoid contact with eyes, wear chemical goggles or shielded safety glasses. An emergency eyewash or water supply should be readily accessible to the work area.

Skin Protection: To avoid contact with skin wear long-sleeved shirt and long pants, shoes, socks, and chemical resistant gloves. An emergency shower or water supply should be readily accessible to the work area.

Respiratory Protection: Not normally required. If dusts exceed acceptable levels, wear NIOSH approved airpurifying respirator with cartridges/canisters approved for use against pesticides.

General Hygiene Considerations: Personal hygiene is an important work practice exposure control measure and the following general measures should be taken when working with or handling this material: 1) do not store, use and/or consume foods, beverages, tobacco products, or cosmetics in areas where this material is stored; 2) wash hands and face carefully before eating, drinking, using tobacco, applying cosmetics or using the toilet.

### **Exposure Guidelines:**

Exposure Guidennes.					····
	0.5	OSHA		ACGIH	
	TWA	STEL	TWA	STEL	Unit
Component	NE	NE	NE	NE	
Fludioxonil	N/A	N/A	N/A	N/A	
Proprietary process impurities	11//	107		I	

NE = Not Established N/A= Not Applicable

## 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance:

Odor:

Odor threshold:

pH:

Melting point/freezing point:

Initial boiling point and boiling range

Flash point:

Evaporation rate:

Flammability (solid, gas):

Upper/lower flammability or explosive limits:

Green-beige to faintly yellow solid powder

Odorless

No data available

6-8

199.8 - 200.1° C

No data available Not applicable

Not applicable

No data available

No data available

## Fludioxonil Technical

Vapor pressure: Vapor density:

Relative density:

Solubility(ies):

Partition coefficient: n-octanol/water: Autoignition temperature:

Decomposition temperature: Viscosity:

3.9 x 10<sup>-4</sup> mPa (25° C)

No data available 1.49 @ 20° C

1.39 mg/ml

2.95

No data available

No data available

No data available

Note: Physical data are typical values, but may vary from sample to sample. A typical value should not be construed as a guaranteed analysis or as a specification.

## 10. STABILITY AND REACTIVITY

Reactivity: Not reactive

Chemical Stability: This material is stable under normal handling and storage conditions.

Possibility of Hazardous Reactions: Will not occur.

Conditions to Avoid: Keep away from heat, sparks and open flame. Minimize dust generate and accumulation.

Incompatible Materials: Strong oxidizing agents: bases and acids.

Hazardous Decomposition Products: Under fire conditions may produce gases such as hydrogen chloride, hydrogen fluoride, oxides and nitrogen.

## 11. TOXICOLOGICAL INFORMATION

Likely Routes of Exposure: Dermal contact, Inhalation

Symptoms of Exposure: Dermal irritation, Respiratory inhalation

Delayed, immediate and chronic effects of exposure: Dermal irritation, Respiratory inhalation

Toxicological Data:

Data from laboratory studies conducted on Fludioxonil Technical:

Oral: Rat LD<sub>50</sub>: >5,000 mg/kg

Dermal: Rabbit LD<sub>50</sub>: >2,000 mg/kg Inhalation: Rat 4-hr LC<sub>50</sub>: > 2.6 mg/L Eye Irritation: Rabbit: Slightly irritating Skin Irritation: Rabbit: Non irritating

Skin Sensitization: Not a contact sensitizer in guinea pigs following repeated skin exposure.

Subchronic (Target Organ) Effects: Repeated overexposure to fludioxonil may cause effects in the kidney and

Carcinogenicity / Chronic Health Effects: Fludioxonil did not cause cancer in laboratory animals. EPA has classified fludioxonil as a Group D chemical - not classifiable as to human carcinogencity.

Reproductive Toxicity: In animal studies, Fludioxonil has been shown not to interfere with reproduction.

Developmental Toxicity: Fludioxonil did not cause birth defects in animals.

Genotoxicity: In vitro bacterial assays and animal tests with fludioxonil did not demonstrate mutagenic effects.

Assessment Carcinogenicity: None listed with ACGIH, IARC, NTP or OSHA.

## 12. ECOLOGICAL INFORMATION

#### **Environmental Hazards:**

This product is toxic to fish and aquatic invertebrates.

#### **Ecotoxicity:**

Data on Fludioxonil Technical:

Bluegill 96-hour LC50:

0.74 ppm

Bobwhite Quail Oral LD<sub>50</sub>:

>5,200 ppm >5,200 ppm

Rainbow Trout 96-hour LC<sub>50</sub>: Daphnia 48-hour EC<sub>50</sub>:

0.47 ppm 0.90 ppm Mallard Duck 8-day Dietary LC50: Honey Bee Oral LD<sub>50</sub>:

> 25 μg/bee

#### **Environmental Fate:**

Fludioxonil, does not bioaccumulate, however it is persistent in soil and is stable in water. It has low mobility in soil. The material sinks in water (after 24 hours).

## 13. DISPOSAL CONSIDERATIONS

Waste Disposal Method:

Open dumping is prohibited. Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility.

Container Handling and Disposal:

Bags: Nonrefillable container. Do not reuse or refill this container. Completely empty bag into manufacturing equipment. Offer for recycling if available or dispose of empty bag in a sanitary landfill or by incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.

Fiber drums: Nonrefillable container. Do not reuse or refill this container. Completely empty liner by shaking and tapping both sides and bottom to loosen clinging particles. Empty residue into manufacturing equipment. Then offer fiber drum and liner for recycling, if available.

Plastic Drums: Nonrefillable Container. Do not reuse or refill this container. Triple rinse or pressure rinse container (or equivalent) promptly after emptying. Then offer for recycling, if available, or puncture and dispose of in an approved sanitary landfill, or by incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.

Triple rinse containers with capacities equal to or less than 5 gallons or 50 lbs as follows: Empty the remaining contents in application equipment or a mix tank. Fill the container 1/4 full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times.

Triple rinse containers with capacities greater than 5 gallons or 50 lbs as follows: Empty the remaining contents into manufacturing equipment. Fill the container 1/4 full with water. Replace and tighten closures. Tip container on its side and roll it back and forth, ensuring at least one complete revolution, for 30 seconds. Stand the container on its end and tip it back and forth several times. Empty the rinsate into manufacturing equipment, or store rinsate for later use or disposal. Repeat this procedure two more times. Pressure rinse as follows: Empty the remaining contents into manufacturing equipment and drain for 10 seconds after the flow begins to drip. Hold container upside down over manufacturing equipment, or collect rinsate for later use or disposal. Insert pressure rinsing nozzle in the side of the container and rinse at about 40 PSI for at least 30 seconds. Drain for 10 seconds after the flow begins to drip.

# 14. TRANSPORTATION INFORMATION

Follow the precautions indicated in Section 7: HANDLING AND STORAGE of this SDS.

# <u>DOT</u>

< 882 pounds per completed package:

Not regulated by DOT unless shipped by water. See IMO / IMDG description.

≥ 882 pounds per completed package:

UN3077, Environmentally hazardous substance, solid, n.o.s., (Fludioxonil), 9, III, Marine Pollutant

<u>IMO / IMDG</u>

UN3077, Environmentally hazardous substance, solid, n.o.s., (Fludioxonil), 9, III, Marine Pollutant

## IATA

Not regulated

# 15. REGULATORY INFORMATION

## **EPA FIFRA INFORMATION**

This chemical is a pesticide product registered by the United States Environmental Protection Agency and is subject to certain labeling requirements under federal pesticide law. These requirements differ from the classification criteria and hazard information required for safety data sheets (SDS), and for workplace labels of non-pesticide chemicals. The hazard information required on the pesticide label is reproduced below. The pesticide label also includes other important information, including directions for use.

# Fludioxonil Technical

CAUTION. Harmful if inhaled or absorbed through skin. Avoid contact with eyes, skin, or clothing. Avoid breathing vapor or spray mist. Wash thoroughly with soap and water after handling. Remove contaminated clothing and wash before reuse.

## **U.S. FEDERAL REGULATIONS**

TSCA Inventory: This product is exempted from TSCA because it is solely for FIFRA regulated use.

SARA Hazard Notification/Reporting:

Hazard Categories Under Criteria of SARA Title III Rules (40 CFR Part 370):

Not listed

Section 313 Toxic Chemical(s):

None

Reportable Quantity (RQ) under U.S. CERCLA:

None

RCRA Waste Code:

Under RCRA, it is the responsibility of the product user to determine at the time of disposal, whether a material containing the product or derived from the product should be classified as a hazardous waste.

State Information:

Other state regulations may apply. Check individual state requirements.

California Proposition 65: Not Listed.

## 16. OTHER INFORMATION

National Fire Protection Association (NFPA) Hazard Rating:

Rating for this product: Health: 1 Flammability: 1 Reactivity: 0

Hazards Scale: 0 = Minimal 1 = Slight 2 = Moderate 3 = Serious 4 = Severe

This Safety Data Sheet (SDS) serves different purposes than and DOES NOT REPLACE OR MODIFY THE EPA-ACCEPTED PRODUCT LABELING (attached to and accompanying the product container). This SDS provides important health, safety and environmental information for employers, employees, emergency responders and others handling large quantities of the product in activities generally other than product use, while the labeling provides that information specifically for product use in the ordinary course.

Use, storage and disposal of pesticide products are regulated by the EPA under the authority of the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) through the product labeling, and all necessary and appropriate precautionary, use, storage, and disposal information is set forth on that labeling. It is a violation of Federal law to use a pesticide product in any manner not prescribed on the EPA-accepted label.

Although the information and recommendations set forth herein (hereinafter "Information") are presented in good faith and believed to be correct as of the date hereof, Nufarm Americas Inc. makes no representations as to the completeness or accuracy thereof. Information is supplied upon the condition that the persons receiving same will make their own determination as to its suitability for their purposes prior to use. In no event will Nufarm Americas Inc. be responsible for damages of any nature whatsoever resulting from the use of or reliance upon Information. NO REPRESENTATIONS OR WARRANTIES, EITHER EXPRESS OR IMPLIED, OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE OR OF ANY OTHER NATURE ARE MADE HEREUNDER WITH RESPECT TO INFORMATION OR THE PRODUCT TO WHICH INFORMATION REFERS AND ALL SUCH WARRANTIES ARE HEREBY SPECIFICALLY DISCLAIMED.

Date of Issue:

May 29, 2015

Supersedes:



## **United States**

OMB Control No. 2070-0020 Expires on 11/30/2016

# **ENVIRONMENTAL PROTECTION AGENCY**

# Washington, DC 20460

# **Notice of Arrival of Pesticides and Devices**

Send Completed Form to Appropriate Regional Office Listed in the Instructions for this Form.

Note: Read Instructions before completing form.

			E d The A			
	Part ·	I: To Be Co	mpleted by Importer	of record or Licensed Customs	Broker	
1. Name and Complete Address of Licenced Customs Broker				2. Name and Complete Address of Importer of Record "		
Expeditors International Attn: Kristen Karg 849 Thomas Drive Bensenville, IL 60106 T:630-616-2318				Nufarm Americas Inc. 11901 South Austin Avenue Alsip, IL 60803 T: 708-377-1330		
Return Form to this	Address			Return to this Address		
3. Name and Complete	Address of	f Shipper		4. EPA Registration Number	5. EPA Producer Establishment No.	
Nutrichem Co., LTD		_		35935-92	88106-CHN-001	
Building D-1, No. 66 Xixiaokou Road Haidian District, Beijing 100192, P.R. China				6. Brand Name of Product  Fludioxonil Technical		
110108777062155	18					
7. Active Ingredients a	nd Percenta	ige of Each				
Fludioxonil 99.0%						
8. Unit Size	9. Quantit	у	10. Total Net Weight	11. Country of Origin		
25 Kg Cartons	40		1,000 Kg	China		
12. Port of Entry	1	1		13. Name and Complete Addre	ss of Carrier	
Chicago Illinois				AMERICAN AIRLINES CARGO ON BOARD: AA186 AIR WAYBILL NUMBER 001-9091 6081		
14. Entry Number		15. Anticij	pated Entry Date			
231-0292007-6		October 3	0, 2015			
17. Location of Goods	for Examina	ation after I	mportation	16. I assert that information constituting Confidential Business Information is shown in the above blocks numbered: (Note: Blocks		
Nufarm Americas, Inc. 11901 S Austin Ave Alsip, IL 60803 Phone: 708-377-1388				4, 5, 6 and 7 are not entitled to	CBI treatmentsee instructions.)	
18. [Optional] For pesticides without an EPA Registration No., select processing of the Notice of Arrival.)			Registration No., select a	all that apply: (The following info	rmation may expedite the	
18a. A pesticide tra	nsferred be	tween regi	stered establishments c	operated by the same producer. [	Domestic Producer Establishment	
Number:						
18b. A pesticide tra	nsferred be	tween regi	stered establishments r	not operated by the same produc	cer. Domestic Producer Establish-	
ment Number: EPA Registration Number of Product being Formulated, if applicable:				applicable:		
18c A nesticide dis	tributed un	der an Evn	erimental I Iso Permit - F	Experimental Use Permit Number	•	

EPA Registration Number: 35935-92	Product Name: Fludioxonil Technical			
Total Net Weight: 1,000 Kg	Entry Number: 231-0292007-6			
18d. A Pesticide distributed for research and deve	lopment purposes without an Experime	ntal Use Permit.		
18e. A pesticide transferred solely for export. Do	mestic Producer Establishment Number			
18f. A pesticide distributed under an emergency e	exemption. Emergency Exemption Num	iber:		
18g. A pesticide transferred for the purposes of di	sposal.			
$\square$ 18h. Other. Provide an explanation including the i States in Block 19 Remarks.	ntended use and a description of why the	ne product is bei	ng impo	orted into the United
19. Remarks. Provide additional information here. It i the NOA.	s recommended that a copy of the label	affixed to the pr	oduct b	e submitted with
AIR WAYBILL NUMBER 001-9091 6081			4.444	
	Certification			
I certify that the statements I made on this form ar knowingly false or misleading statement	nd all attachments thereto are true, accu may be punishable by fine or imprisonm	rate and complete nent or both und	te, I ack er appli	nowledge that any cable law.
20. Printed Name of Importer of Record or Licensed Customs Broker		Telephone No.:	708-37	77-1365
21. Signature of Importer of Record or Licensed Customs Broker:	wittroro		Date:	October 30, 2015
Part II: To Be Com	pleted by U.S. Environmental Protect	ion Agency	•	
Action to be taken by U.S. Customs and Border Prote Release Shipment Detain for inspection Other. (Specify)	ction: Release shipment to consignee under b inspection.	ond. Shìpment n	nust be	held intact pending
Remarks:				
				- 44 manufacture of the same o
Signature and Title of EPA Official:			Date:	NOV 0 5 2015
	mpleted by U.S. Customs and Border			n distribution of the state of
The information shown in Part I was compared wit was handled as instructed by EPA in Part II. Any dev	h the entry papers for this shipment and riations should be brought to the attenti should be noted in "Remarks."	I no discrepancie ion of EPA before	s were i releasi	noted. The shipment ng the shipment and
Remarks:				
Signature of District Director of Customs:			Date:	

Paperwork Reduction Act Notice: The estimated average time to read the instructions and complete this form is 26 minutes. Send comments regarding the burden estimates or any other aspect of this collection of information to: Director, Collection Strategies Division, Office of Environmental Information (OEI), U.S. Environmental Protection Agency (Mail Code 2822), 1200 Pennsylvania Avenue, NW, Washington, DC 20460. Include OMB number 2070-0020 in any correspondence.

# FLUDIOXONIL TECHNICAL

# FOR MANUFACTURING USE ONLY

ACTIVE INGREDIENT:	
Fludioxonil	99.0%
OTHER INGREDIENTS:	1.0%
TOTAL	100.0%

EPA Reg. No. 35935-92

EPA Est. No. 88106-CHN-001

# KEEP OUT OF REACH OF CHILDREN CAUTION

For Chemical Spill, Leak, Fire, or Exposure Call CHEMTREC (800) 424-9300 For Medical Emergencies Only Call (877) 325-1840

	modical miles garage and and (v. ) 1- 1-
	FIRSTAID
IF IN EYES	<ul> <li>Hold eye open and rinse slowly and gently with water for 15 to 20 minutes.</li> <li>Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye.</li> <li>Call a poison control center or doctor for treatment advice.</li> </ul>
IF ON SKIN OR CLOTHING	Take off contaminated clothing. Rinse skin immediately with plenty of water for 15 to 20 minutes. Call a poison control center or doctor for treatment advice.
(F INHALED	<ul> <li>Move person to fresh air.</li> <li>If person is not breathing, call 911 or an ambulance, then give antificial respiration, preferably by mouth-to-mouth, if possible.</li> <li>Call a poison control center or doctor for further treatment advice.</li> </ul>
IF SWALLOWED	<ul> <li>Call a poison control center or doctor immediately for treatment advice.</li> <li>Have person sip a glass of water if able to swallow.</li> <li>DO NOT induce vomiting unless told to do so by a poison control center or doctor.</li> <li>DO NOT give anything by mouth to an unconscious person.</li> </ul>
	HOT LINE ALIMPER

Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact 1-877-325-1840 for emergency medical treatment information.

# PRECAUTIONARY STATEMENTS

HAZARDS TO HUMANS AND DOMESTIC ANIMALS CAUTION

Harmful if inhaled or absorbed through skin. Avoid contact with eyes, skin, or clothing, Avoid breathing vapor or spray mist. Wash thoroughly with soap and water after handling. Remove contaminated clothing and wash before reuse.

#### **ENVIRONMENTAL HAZARDS**

This product is toxic to fish and aquatic invertebrates. DO NOT discharge effluent containing this product into lakes, streams, ponds, estuaries, oceans, or other waters unless in accordance with the requirements of a National Poliutant Discharge Elimination System (NPDES) permit and the permitting authority has been notified in writing prior to discharge. DO NOT discharge effluent containing this product to sewer systems without previously notifying the local sewage treatment plant authority. For guidance contact your State Water Board or Regional Office of the EPA.

## DIRECTIONS FOR USE

It is a violation of Federal faw to use this product in a manner inconsistent with its labeling. This product is intended for the formulation of fungicide products. This product may be used to formulate products for specific use(s) not listed on the MP label if the formulator, user group, or grower has complied with the U.S. EPA data submission requirements regarding the support of such use(s).

# FOR MANUFACTURING USE ONLY INTO A FUNGICIDE FOR THE FOLLOWING USES:

- 1. Seed Treatment Uses: Root and Tuber vegetables, Bulb vegetables, Leafy vegetables, except Brassica vegetables, Brassica (Cole) leafy vegetables, Legume vegetables (succulent or dried), Fruiting vegetables (except cucurbits), Cucurbit vegetables, Cereal grains, Nongrass animal feeds (forage, fodder, straw, and hay), Herbs and Spices, Rape, Cotton, Peanut, Crambe, Flax, Jojoba, Lesquerella, Safflower, and Sunflower.
- Post Harvest Uses: Citrus fruit group (Crop group 10), Kiwi, Pome fruit group (Crop group 11), Pomegranate, Stone fruit group (Crop group 12), and Sweet potato.
- Terrestrial Nonfood Uses: Omamentals grown in interiorscapes, field nursery plantings, container nurseries, forest nurseries, residential and commercial landscapes, greenhouses, lath and shade houses, or other enclosed structures; vegetables including seedlings and transplants grown in greenhouses, lath and shade houses, or other enclosed durations.
- Uses for which the US EPA has accepted the required data and/or citations of data that the formulator has submitted in support of registration; and
- 5. Uses for experimental purposes that are in compliance with US EPA requirements

## STORAGE AND DISPOSAL

DO NOT contaminate water, food, or feed by storage and disposal.

PESTICIDE STORAGE: Always use original container to store pesticides in a cool, dry secured warehouse or storage building. DO NOT store near food and feed. Containers should be opened in well-ventilated areas. Keep container tightly sealed when not in use

PESTICIDE DISPOSAL: Open dumping is prohibited. Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility. CONTAINER HANDLING:

Plastic or Paper Bags: Nonrefillable container. DO NOT reuse or refill this container. Completely empty bag into manufacturing equipment. Offer for recycling if available or dispose of empty bag in a sanitary landfill or by incineration, or, if allowed by state and local authorities, by burning, if burned, stay out of smoke

#### WARRANTY DISCLAIMER AND LIMITATION OF LIABILITY

The directions for use of this product must be followed carefully. TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, (1) THE GOODS DELIVERED TO YOU ARE FURNISHED "AS IS" BY MANUFACTURER OR SELLER AND (2) MANUFACTURER AND SELLER MAKE NO WARRANTIES, GUARANTEES, OR REPRESENTATIONS OF ANY KIND TO BUYER OR USER, EITHER EXPRESS OR IMPLIED, OR BY USAGE OF TRADE, STATUTORY OR OTHERWISE, WITH REGARD TO THE PRODUCT SOLD, INCLUDING, BUT NOT LIMITED TO MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, USE, OR ELIGIBILITY OF THE PRODUCT FOR ANY PARTICULAR TRADE USAGE. TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, BUYER'S OR USER'S EXCLUSIVE REMEDY, AND MANUFACTURER'S OR SELLER'S TOTAL LIABILITY SHALL BE FOR DAMAGES NOT EXCEEDING THE

If you do not agree with or do not accept any of the directions for use, the warranty disclaimers, or limitations on liability, do not use the product, and return it unopened to the Seller, and the purchase price will be refunded.

RV051115

MADE IN CHINA

NET WEIGHT: 55.1 LBS (25 KG)

Manufactured for NUFARM LIMITED 4020 Aerial Center Parkway, Suite 101 Morrisville, NC 27560





## 1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Name:

Fludioxonil Technical

EPA Reg. No.:

35935-92

**Product Type:** 

Fungicide - For Manufacturing Use Only

Company Name:

Nufarm Limited.

4020 Aerial Center Parkway Morrisville, NC 27560 1-800-345-3330

Telephone Numbers: For Chemical Emergency, Spill, Leak, Fire, Exposure, or Accident,

Call CHEMTREC Day or Night: 1-800-424-9300 For Medical Emergencies Only, Call 1-877-325-1840

This product is an EPA FIFRA registered pesticide. Some classifications on this SDS are not the same as on the FIFRA label. Certain sections are superseded by federal law governed by EPA for a registered pesticide. Please see Section 15. REGULATORY INFORMATION for explanation.

## 2. HAZARDS IDENTIFICATION

## **HEALTH HAZARDS:**

Acute toxicity, inhalation

Category 4

Specific target organ toxicity - Repeated exposure

Category 2

## **ENVIRONMENTAL HAZARDS:**

Hazardous to aquatic environment, acute

Category 1

Hazardous to aquatic environment, chronic

Category 1

# SIGNAL WORD:

WARNING

# HAZARD STATEMENTS:

Harmful if inhaled. May cause damage to organs (liver, kidney) through prolonged or repeated exposure. Very toxic to aquatic life with long lasting effects.





## PRECAUTIONARY STATEMENTS

Do not breathe dust, fumes, gas, mist, vapors or spray. Use only outdoors or in a well-ventilated area. Call a poison control center or doctor if you feel unwell. If exposed or concerned: Call a poison center/doctor. See Section 4 First Aid and label instructions for emergency medical advice. Get medical advice/attention if you feel unwell.

Do not eat, drink, or smoke when using this product.

Respiratory protection not normally required. If dusts exceed acceptable levels, wear NIOSH approved airpurifying respirator with cartridges/canisters approved for use against pesticides. Get medical advice/attention if you feel unwell.

Dispose of contents/container in accordance with state and federal regulations. See Section 13 and product label for disposal instructions.

## 3. COMPOSITION / INFORMATION ON INGREDIENTS

COMPONENTS

CAS NO.

% BY WEIGHT

# Fludioxonil Technical

Fludioxonil
Proprietary process related impurities

131341-86-1 Trade Secret 95.06 - 100 Trade Secret

Synonyms:

4-(2,2-difluoro-1,3-benzodioxol-4-yl)-1H-pyrrole-3-carbonitrile

Ingredients not precisely identified are proprietary or non-hazardous. Values are not product specifications

## 4. FIRST AID MEASURES

If on Skin or Clothing: Take off contaminated clothing. Rinse skin immediately with plenty of water for 15 to 20 minutes. Call a poison control center or doctor for treatment advice.

If Swallowed: Call a poison control center or doctor immediately for treatment advice. Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by the poison control center or doctor. Do not give anything by mouth to an unconscious person.

If in Eyes: Hold eye open and rinse slowly and gently with water for 15 to 20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a poison control center or doctor for treatment advice.

If Inhaled: Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible. Call a poison control center or doctor for further treatment advice.

Most Important symptoms/effects: Dermal irritation, Respiratory irritation

Indication of Immediate medical attention and special treatment if needed: For ingestion there is no specific antidote available. Treat symptomatically.

### 5. FIRE FIGHTING MEASURES

Extinguishing Media: Recommended for large fires: alcohol-resistant foam, dry chemical, water spray, or carbon dioxide. Recommended for small fires: dry chemical or carbon dioxide.

**Special Fire Fighting Procedures:** Firefighters should wear NIOSH/MSHA approved self-contained breathing apparatus and full fire-fighting turn out gear. Toxic, irritating vapors may be formed if product is involved in a fire. Dike area to prevent runoff and contamination of water sources. Dispose of fire control water later.

Unusual Fire and Explosion Hazards: Avoid generating dust; fine dust dispersed in air in sufficient concentrations, and in the presence of an ignition source, is a potential dust explosion hazard. If water is used to fight fire, contain runoff, using dikes to prevent contamination of water supplies. Dispose of fire control water later. Hazardous Decomposition Materials (Under Fire Conditions): May produce gases such as hydrogen chloride, hydrogen fluoride, oxides and nitrogen.

## 6. ACCIDENTAL RELEASE MEASURES

Personal Precautions: Wear appropriate protective gear for the situation. See Personal Protection information in Section 8.

**Environmental Precautions:** Prevent material from entering public sewer systems or any waterways. Do not flush to drain. Large spills to soil or similar surfaces may necessitate removal of topsoil. The affected area should be removed and placed in an appropriate container for disposal.

Methods for Containment: Dike spill using absorbent or impervious materials such as earth, sand or clay. Collect and contain contaminated absorbent and dike material for disposal.

**Methods for Cleanup and Disposal:** Avoid creation of dusty conditions. If dry, sweep or scoop up material and place into container for disposal. If wet, pump any free liquid into an appropriate closed container. Decontaminate tools and equipment following cleanup. See Section 13: DISPOSAL CONSIDERATIONS for more information.

Other Information: Dust deposits should not be allowed to accumulate on surfaces, as these may form an explosive mixture if they are released into the atmosphere in sufficient concentration.

Avoid dispersal of dust in the air (i.e., clearing dust surfaces with compressed air).

Large spills may be reportable to the National Response Center (800-424-8802) and to state and/or local agencies.

## 7. HANDLING AND STORAGE

## HANDLING:

Minimize dust generation and accumulation. Routine housekeeping should be instituted to ensure that dusts do not accumulate on surfaces. Dry powders can build static electricity charges when subjected to the friction of transfer and mixing operations. Provide adequate precautions, such as electrical grounding and bonding, or inert atmospheres.

Avoid contact with eyes, skin or clothing. Avoid breathing dust. Users should wash hands before eating, drinking, chewing gum, using tobacco or using the toilet. Remove clothing/Personal Protective Equipment (PPE) immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing. Remove Personal Protective Equipment (PPE) immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

#### STORAGE:

Always use original container to store pesticides in a cool, dry secured warehouse or storage building. Do not store near food and feed. Containers should be opened in well-ventilated areas. Keep container tightly sealed when not in use. Do not contaminate water, food or feed by storage or disposal.

# 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

## **Engineering Controls:**

Where engineering controls are indicated by specific use conditions or a potential for excessive exposure, use local exhaust ventilation at the point of generation.

Ensure that dust-handling systems (such as exhaust ducts, dust collectors, vessels, and processing equipment) are designed in a manner to prevent the escape of dust into the work area (i.e., there is no leakage from the equipment).

# Personal Protective Equipment:

**Eye/Face Protection:** To avoid contact with eyes, wear chemical goggles or shielded safety glasses. An emergency eyewash or water supply should be readily accessible to the work area.

**Skin Protection:** To avoid contact with skin wear long-sleeved shirt and long pants, shoes, socks, and chemical resistant gloves. An emergency shower or water supply should be readily accessible to the work area.

Respiratory Protection: Not normally required. If dusts exceed acceptable levels, wear NIOSH approved airpurifying respirator with cartridges/canisters approved for use against pesticides.

General Hygiene Considerations: Personal hygiene is an important work practice exposure control measure and the following general measures should be taken when working with or handling this material: 1) do not store, use and/or consume foods, beverages, tobacco products, or cosmetics in areas where this material is stored; 2) wash hands and face carefully before eating, drinking, using tobacco, applying cosmetics or using the toilet.

# **Exposure Guidelines:**

	OSHA		ACGIH		
Component	TWA	STEL	TWA	STEL	Unit
Fludioxonil	NE	NE	NE	NE	
Proprietary process impurities	N/A	N/A	N/A	N/A	

NE = Not Established N/A= Not Applicable

## 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance:

Green-beige to faintly yellow solid powder

Odor:

Odorless

Odor threshold:

No data available

pH:

6-8

Melting point/freezing point:

199.8 – 200.1° C No data available

Initial boiling point and boiling range Flash point:

Not applicable

Evaporation rate:

Not applicable

Flammability (solid, gas): Upper/lower flammability or explosive limits: No data available No data available

# Fludioxonil Technical

# SAFETY DATA SHEET

Vapor pressure:

Vapor density:

Relative density:

Solubility(ies): Partition coefficient: n-octanol/water:

Autoignition temperature: Decomposition temperature:

Viscosity:

3.9 x 10<sup>-4</sup> mPa (25° C)

No data available

1.49 @ 20° C

1.39 mg/ml

2.95

No data available No data available

No data available

Note: Physical data are typical values, but may vary from sample to sample. A typical value should not be construed as a guaranteed analysis or as a specification.

## 10. STABILITY AND REACTIVITY

Reactivity: Not reactive

Chemical Stability: This material is stable under normal handling and storage conditions.

Possibility of Hazardous Reactions: Will not occur.

Conditions to Avoid: Keep away from heat, sparks and open flame. Minimize dust generate and accumulation.

Incompatible Materials: Strong oxidizing agents: bases and acids.

Hazardous Decomposition Products: Under fire conditions may produce gases such as hydrogen chloride,

hydrogen fluoride, oxides and nitrogen.

# 11. TOXICOLOGICAL INFORMATION

Likely Routes of Exposure: Dermal contact, Inhalation

Symptoms of Exposure: Dermal irritation, Respiratory inhalation

Delayed, immediate and chronic effects of exposure: Dermal irritation, Respiratory inhalation

Toxicological Data:

Data from laboratory studies conducted on Fludioxonil Technical:

Oral: Rat LD<sub>50</sub>: >5,000 mg/kg Dermal: Rabbit LD<sub>50</sub>: >2,000 mg/kg

Inhalation: Rat 4-hr LC<sub>50</sub>: > 2.6 mg/L Eye Irritation: Rabbit: Slightly irritating Skin Irritation: Rabbit: Non irritating

Skin Sensitization: Not a contact sensitizer in quinea pigs following repeated skin exposure.

Subchronic (Target Organ) Effects: Repeated overexposure to fludioxonil may cause effects in the kidney and

liver.

Carcinogenicity / Chronic Health Effects: Fludioxonil did not cause cancer in laboratory animals. EPA has classified fludioxonil as a Group D chemical - not classifiable as to human carcinogencity.

Reproductive Toxicity: In animal studies, Fludioxonil has been shown not to interfere with reproduction.

Developmental Toxicity: Fludioxonil did not cause birth defects in animals.

Genotoxicity: In vitro bacterial assays and animal tests with fludioxonil did not demonstrate mutagenic effects.

Assessment Carcinogenicity: None listed with ACGIH, IARC, NTP or OSHA.

# 12. ECOLOGICAL INFORMATION

# **Environmental Hazards:**

This product is toxic to fish and aquatic invertebrates.

**Ecotoxicity:** 

Data on Fludioxonil Technical:

Bluegill 96-hour LC<sub>50</sub>:

0.74 ppm 0.47 ppm Bobwhite Quail Oral LD<sub>50</sub>: Malfard Duck 8-day Dietary LC<sub>50</sub>: >5,200 ppm >5,200 ppm

Rainbow Trout 96-hour LC50: Daphnia 48-hour EC<sub>50</sub>:

0.90 ppm

Honey Bee Oral LD<sub>50</sub>:

> 25 µg/bee

**Environmental Fate:** 

Fludioxonil, does not bioaccumulate, however it is persistent in soil and is stable in water. It has low mobility in soil. The material sinks in water (after 24 hours).

## 13. DISPOSAL CONSIDERATIONS

## Waste Disposal Method:

Open dumping is prohibited. Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility.

# Container Handling and Disposal:

Bags: Nonrefillable container. Do not reuse or refill this container. Completely empty bag into manufacturing equipment. Offer for recycling if available or dispose of empty bag in a sanitary landfill or by incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.

Fiber drums: Nonrefillable container. Do not reuse or refill this container. Completely empty liner by shaking and tapping both sides and bottom to loosen clinging particles. Empty residue into manufacturing equipment. Then offer fiber drum and liner for recycling, if available.

**Plastic Drums:** Nonrefillable Container. Do not reuse or refill this container. Triple rinse or pressure rinse container (or equivalent) promptly after emptying. Then offer for recycling, if available, or puncture and dispose of in an approved sanitary landfill, or by incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.

Triple rinse containers with capacities equal to or less than 5 gallons or 50 lbs as follows: Empty the remaining contents in application equipment or a mix tank. Fill the container 1/4 full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times.

Triple rinse containers with capacities greater than 5 gallons or 50 lbs as follows: Empty the remaining contents into manufacturing equipment. Fill the container 1/4 full with water. Replace and tighten closures. Tip container on its side and roll it back and forth, ensuring at least one complete revolution, for 30 seconds. Stand the container on its end and tip it back and forth several times. Empty the rinsate into manufacturing equipment, or store rinsate for later use or disposal. Repeat this procedure two more times. Pressure rinse as follows: Empty the remaining contents into manufacturing equipment and drain for 10 seconds after the flow begins to drip. Hold container upside down over manufacturing equipment, or collect rinsate for later use or disposal. Insert pressure rinsing nozzle in the side of the container and rinse at about 40 PSI for at least 30 seconds. Drain for 10 seconds after the flow begins to drip.

## 14. TRANSPORTATION INFORMATION

Follow the precautions indicated in Section 7: HANDLING AND STORAGE of this SDS.

## DOT

## < 882 pounds per completed package:

Not regulated by DOT unless shipped by water. See IMO / IMDG description.

## ≥ 882 pounds per completed package:

UN3077, Environmentally hazardous substance, solid, n.o.s., (Fludioxonil), 9, III, Marine Pollutant

## IMO / IMDG

UN3077, Environmentally hazardous substance, solid, n.o.s., (Fludioxonil), 9, III, Marine Pollutant

# <u>IATA</u>

Not regulated

# 15. REGULATORY INFORMATION

# **EPA FIFRA INFORMATION**

This chemical is a pesticide product registered by the United States Environmental Protection Agency and is subject to certain labeling requirements under federal pesticide law. These requirements differ from the classification criteria and hazard information required for safety data sheets (SDS), and for workplace labels of non-pesticide chemicals. The hazard information required on the pesticide label is reproduced below. The pesticide label also includes other important information, including directions for use.

# Fludioxonil Technical

CAUTION. Harmful if inhaled or absorbed through skin. Avoid contact with eyes, skin, or clothing. Avoid breathing vapor or spray mist. Wash thoroughly with soap and water after handling. Remove contaminated clothing and wash before reuse.

## **U.S. FEDERAL REGULATIONS**

TSCA Inventory: This product is exempted from TSCA because it is solely for FIFRA regulated use.

SARA Hazard Notification/Reporting:

Hazard Categories Under Criteria of SARA Title III Rules (40 CFR Part 370):

Not listed

Section 313 Toxic Chemical(s):

None

Reportable Quantity (RQ) under U.S. CERCLA:

None

**RCRA Waste Code:** 

Under RCRA, it is the responsibility of the product user to determine at the time of disposal, whether a material containing the product or derived from the product should be classified as a hazardous waste.

State Information:

Other state regulations may apply. Check individual state requirements.

California Proposition 65: Not Listed.

## 16. OTHER INFORMATION

National Fire Protection Association (NFPA) Hazard Rating:

Rating for this product: Health: 1 Flammability: 1 Reactivity: 0

Hazards Scale: 0 = Minimal 1 = Slight 2 = Moderate 3 = Serious 4 = Severe

This Safety Data Sheet (SDS) serves different purposes than and DOES NOT REPLACE OR MODIFY THE EPA-ACCEPTED PRODUCT LABELING (attached to and accompanying the product container). This SDS provides important health, safety and environmental information for employers, employees, emergency responders and others handling large quantities of the product in activities generally other than product use, while the labeling provides that information specifically for product use in the ordinary course.

Use, storage and disposal of pesticide products are regulated by the EPA under the authority of the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) through the product labeling, and all necessary and appropriate precautionary, use, storage, and disposal information is set forth on that labeling. It is a violation of Federal law to use a pesticide product in any manner not prescribed on the EPA-accepted label.

Although the information and recommendations set forth herein (hereinafter "Information") are presented in good faith and believed to be correct as of the date hereof, Nufarm Americas Inc. makes no representations as to the completeness or accuracy thereof. Information is supplied upon the condition that the persons receiving same will make their own determination as to its suitability for their purposes prior to use. In no event will Nufarm Americas Inc. be responsible for damages of any nature whatsoever resulting from the use of or reliance upon Information. NO REPRESENTATIONS OR WARRANTIES, EITHER EXPRESS OR IMPLIED, OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE OR OF ANY OTHER NATURE ARE MADE HEREUNDER WITH RESPECT TO INFORMATION OR THE PRODUCT TO WHICH INFORMATION REFERS AND ALL SUCH WARRANTIES ARE HEREBY SPECIFICALLY DISCLAIMED.

Date of Issue:

May 29, 2015

Supersedes:



# **United States**

OM8 Control No. 2070-0020 Expires on 11/30/2016

# **ENVIRONMENTAL PROTECTION AGENCY**

# Washington, DC 20460

# **Notice of Arrival of Pesticides and Devices**

Send Completed Form to Appropriate Regional Office Listed in the Instructions for this Form.

Note: Read Instructions before completing form.

	Dart	1. To Ba Co	mnlated by Impartar	of record or Licensed Customs	Realizar	
4 Novaš and Consolida		······				
1. Name and Complete Address of Licenced Customs Broker				2. Name and Complete Address	of Importer of Record	
Expeditors International Attn: Brynn Wisz 849 Thomas Drive Bensenville, IL 60106 T:630-616-2318				Nufarm Americas Inc. 11901 South Austin Avenue Alsip, IL 60803 T: 708-377-1330		
Return Form to this	Address			Return to this Address		
3. Name and Complete	Address o	f Shipper		4. EPA Registration Number	5. EPA Producer Establishment No.	
VISION FLUOROCHE	EM (NANJI	NG) LTD.		35935-92	90414-CHN-001	
150 PUQIAO ROAD, NANJING CHEMICAI		·		6. Brand Name of Product		
NANJING , CHN		NI FARK		Fludioxonil Technical		
7. Active Ingredients a	nd Percent	age of Each	AA			
Fludioxonil 99.0%					·	
8. Unit Size	9. Quanti	ty	10. Total Net Weight	11. Country of Origin		
25 Kg Cartons	40		1,000 Kg	China		
12. Port of Entry				13. Name and Complete Addre	ss of Carrier	
Chicago Illinois				WAY LOGISTICS(CHNA)	CO LTD	
14. Entry Number		15. Antici	pated Entry Date	e-WAY LOGISTICS(CHINA) CO., LTD. ON BOARD: PO212 AIR WAYBILL NUMBER 403-38714104  16. I assert that information constituting Confidential Business Information is shown in the above blocks numbered: (Note: Blocks 4, 5, 6 and 7 are not entitled to CBI treatment—see instructions.)		
231-2402652-2		December	3, 2015			
17. Location of Goods	for Examin	ation after I	mportation			
Nufarm Americas, Inc. 11901 S Austin Ave Alsip, IL 60803 Phone: 708-377-1388				4, 5, 0 and 7 are not entitled to	Cortieathent-see instructions.)	
18. [Optional] For pesticides without an EPA Registration No., select processing of the Notice of Arrival.)			Registration No., select a	all that apply: (The following info	rmation may expedite the	
18a. A pesticide tra	nsferred be	etween regi	stered establishments o	operated by the same producer. [	Domestic Producer Establishment	
Number:						
🔲 18b. A pesticide tra	nsferred be	etween reg	istered establishments i	not operated by the same produc	er. Domestic Producer Establish-	
ment Number:		E	PA Registration Numbe	er of Product being Formulated, if	applicable:	
18c A particida dis	tribuitad ur	idar an Evn	erimental I Ice Permit	Evnerimental I Isa Permit Number	••	

EPA Registration Number: 35935-92	Product Name: Fludioxonil Technical	***************************************			
Total Net Weight: 1,000 Kg	Entry Number: 231-2402652-2	Number: 231-2402652-2			
☐ 18d. A Pesticide distributed for research and devel	opment purposes without an Experime	ental Use Permit.			
☐ 18e. A pesticide transferred solely for export. Do					
☐ 18f. A pesticide distributed under an emergency e	xemption. Emergency Exemption Nun	nber:			
18g. A pesticide transferred for the purposes of dis	sposal.	******			
$\square$ 18h. Other. Provide an explanation including the in States in Block 19 Remarks.	ntended use and a description of why t	he product is bei	ng impo	rted into the United	
19. Remarks. Provide additional information here. It is the NOA.	recommended that a copy of the labe	affixed to the pr	oduct b	e submitted with	
AIR WAYBILL NUMBER 403-38714104					
	·				
	Certification				
I certify that the statements I made on this form an knowingly false or misleading statement r					
20. Printed Name of Importer of Record or Licensed Customs Broker		Telephone No.:	708-377	7-1365	
21. Signature of Importer of Record or Licensed Customs Broker:	unturo		Date:	December 3, 2015	
Part II: To Be Comp	oleted by U.S. Environmental Protect	on Agency		1.114	
Action to be taken by U.S. Customs and Border Protec	tion:				
$\square$ Release Shipment $\square$ Petain for inspection $\square_i$	Release shipment to consignee under b nspection.	ond. Shipment n	nust be h	neld intact pending	
Other. (Specify) ENFORLEMENT	HOUD - EPA INSPEC	TION			
Remarks: A CAR 12.13- THIS 1	MPORT SHIPMENT SH	ould be		A OT O	
CENTRAL EXAMINATION SITE	FOR INSPECTION, PLA	248E CAR	LER	AM	
312-876-7598 OR 312-353	- 8931 WHEN STAP ME	JT K AW	TILAI	纵	
Signature and Title of EPA Official:	on/Ahnotofm	W	Date:	17/16	
I	pleted by U.S. Customs and Boyder I			* [	
The information shown in Part I was compared with was handled as instructed by EPA in Part II. Any devia					
Remarks:		40-340			
Signature of District Director of Customs:			Date:		

Paperwork Reduction Act Notice: The estimated average time to read the instructions and complete this form is 26 minutes. Send comments regarding the burden estimates or any other aspect of this collection of information to: Director, Collection Strategies Division, Office of Environmental Information (OEI), U.S. Environmental Protection Agency (Mail Code 2822), 1200 Pennsylvania Avenue, NW, Washington, DC 20460. Include OMB number 2070-0020 in any correspondence.

# **FLUDIOXONIL TECHNICAL**

# For Manufacturing Use Only

## 

EPA REG. NO. 35935-92

EPA EST. NO. 90414-CHN-1

# KEEP OUT OF REACH OF CHILDREN CAUTION

SEE BELOW FOR FIRST AID AND ADDITIONAL PRECAUTIONARY STATEMENTS

For Chemical Spill, Leak, Fire, or Exposure, Call CHEMTREC (800) 424-9300 For Medical Emergencies Only, Call (877) 325-1840

# PRECAUTIONARY STATEMENTS HAZARDS TO HUMANS AND DOMESTIC ANIMALS

# CAUTION

Harmful if inhaled or absorbed through skin. Avoid contact with eyes, skin, or clothing. Avoid breathing vapor or spray mist. Wash thoroughly with soap and water after handling. Remove contaminated clothing and wash before reuse.

FIRST AID						
IF IN EYES	Hold eye open and rinse slowly and gently with water for 15 to 20 minutes. Remove confact lenses, if present, after the first 5 minutes, then confinue rinsing eye. Call a poison control center or doctor for treatment advice.					
IF ON SKIN OR CLOTHING	Take off contaminated clothing. Rinse skin immediately with plenty of water for 15 to 20 minutes. Call a poison control center or doctor for treatment advice.					
IF INHALED	Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible. Call a poison control center or doctor for further treatment advice.					
IF SWALLOWED	Call a poison control center or doctor immediately for treatment advice. Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by the poison control center or doctor. Do not give anything by mouth to an unconscious person.					
LIOT LINE NUMBER						

#### HOT LINE NUMBER

Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact 1-877-325-1840 for emergency medical treatment information.

## ENVIRONMENTAL HAZARDS

This product is toxic to fish and aquatic invertebrates. Do not discharge effluent containing this product into lakes, streams, ponds, estuaries, coeans, or other waters unless in accordance with the requirements of a National Pollutant Discharge Ellimination System (NPDES) permit and the permitting authority has been notified in writing prior to discharge. Do not discharge effluent containing this product to sewer systems without previously notifying the local sewage treatment plant authority. For guidance contact your State Water Board or Regional Office of the EPA.

### DIRECTIONS FOR USE

It is a violation of Federal law to use this product in a manner inconsistent with its labeling.

This product is intended for the formulation of fungicide products. This product may be used to formulate products for specific use(s) not listed on the MP label if the formulator, user group, or grower has complied with the U.S. EPA data submission requirements regarding the support of such use(s).

FOR MANUFACTURING USE ONLY INTO A FUNGICIDE FOR THE FOLLOWING

- 1. Seed Treatment Uses: Root and Tuber vegetables, Bulb vegetables, Leafy vegetables, except Brassica vegetables, Brassica (Cole) leafy vegetables, Legume vegetables (succutent or dried), Fruiting vegetables (except cucurbits), Cucurbit vegetables, Cereal grains, Nongrass animal feeds (forage, fodder, straw, and hay), Herbs and Spices, Rape, Cotton, Peanut, Crambe, Flax, Jojoba, Lesquerella, Safflower, and Sunflower.
- 2. Post Harvest Uses: Citrus fruit group (Crop group 10), Kiwi, Pome fruit group (Crop group 11), Pomegranate, Stone fruit group (Crop group 12), and Sweet potato.
- 3. Uses for which the US EPA has accepted the required data and/or citations of data that the formulator has submitted in support of registration; and
- 4. Uses for experimental purposes that are in compliance with US EPA requirements

## STORAGE AND DISPOSAL

DO NOT contaminate water, food, or feed by storage or disposal.

PESTICIDE STORAGE: Always use original container to store pesticides in a cool, dry secured warehouse or storage building. DO NOT store near food and feed. Containers should be opened in well-ventilated areas. Keep container lightly sealed when not in use.

PESTICIDE DISPOSAL: Open dumping is prohibited. Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility.

#### CONTAINER DISPOSAL:

Nonrefillable container. Do not reuse or refill this container. Completely empty liner by shaking and tapping both sides and bottom to loosen dinging particles. Empty residue into manufacturing equipment. Then offer fiber drum and liner for recycling, if weighble.

#### WARRANTY DISCLAIMER AND LIMITATION OF LIABILITY

The directions for use of this product must be followed carefully. TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, (1) THE GOODS DELIVERED TO YOU ARE FURNISHED "AS IS"BY MANUFACTURER OR SELLER AND (2) MANUFACTURER AND SELLER MAKE NO WARRANTIES, GUARANTEES, OR REPRESENTATIONS OF ANY KIND TO BUYER OR USER, EITHER EXPRESS OR IMPLIED, OR BY USAGE OF TRADE, STATUTORY OR OTHERWISE, WITH REGARD TO THE PRODUCT SOLD, INCLUDING, BUT NOT LIMITED TO MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, USE, OR ELIGIBILITY OF THE PRODUCT FOR ANY PARTICULAR TRADE USAGE. TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, BUYERS OR USER'S EXCLUSIVE REMEDY, AND MANUFACTURER'S OR SELLER'S TOTAL LIABILITY SHALL BE FOR DAMAGES NOT EXCEEDING THE COST OF THE PRODUCT.

if you do not agree with or do not accept any of directions for use, the warranty disclaimers, or limitations on liability, do not use the product, and return it unopened to the Seller, and the purchase price will be refunded.

(RV030714) 17103000

NET WEIGHT: 55 LBS (25 KG)

Manufactured For NUFARM LTD. 4020 Aerial Center Parkway Morrisville, NC 27560





## 1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

**Product Name:** 

Fludioxonil Technical

EPA Reg. No.:

35935-92

Product Type:

Fungicide - For Manufacturing Use Only

Company Name:

Nufarm Limited.

4020 Aerial Center Parkway Morrisville, NC 27560 1-800-345-3330

Telephone Numbers: For Chemical Emergency, Spill, Leak, Fire, Exposure, or Accident,

Call CHEMTREC Day or Night: 1-800-424-9300 For Medical Emergencies Only, Call 1-877-325-1840

This product is an EPA FIFRA registered pesticide. Some classifications on this SDS are not the same as on the FIFRA label. Certain sections are superseded by federal law governed by EPA for a registered pesticide. Please see Section 15. REGULATORY INFORMATION for explanation.

## 2. HAZARDS IDENTIFICATION

## **HEALTH HAZARDS:**

Acute toxicity, inhalation

Category 4

Specific target organ toxicity - Repeated exposure

Category 2

## **ENVIRONMENTAL HAZARDS:**

Hazardous to aquatic environment, acute

Category 1

Hazardous to aquatic environment, chronic

Category 1

## SIGNAL WORD:

WARNING

# HAZARD STATEMENTS:

Harmful if inhaled. May cause damage to organs (liver, kidney) through prolonged or repeated exposure. Very toxic to aquatic life with long lasting effects.





## PRECAUTIONARY STATEMENTS

Do not breathe dust, fumes, gas, mist, vapors or spray. Use only outdoors or in a well-ventilated area. Call a poison control center or doctor if you feel unwell. If exposed or concerned: Call a poison center/doctor. See Section 4 First Aid and label instructions for emergency medical advice. Get medical advice/attention if you feel unwell.

Do not eat, drink, or smoke when using this product.

Respiratory protection not normally required. If dusts exceed acceptable levels, wear NIOSH approved airpurifying respirator with cartridges/canisters approved for use against pesticides. Get medical advice/attention if you feel unwell.

Dispose of contents/container in accordance with state and federal regulations. See Section 13 and product label for disposal instructions.

# 3. COMPOSITION / INFORMATION ON INGREDIENTS

COMPONENTS

CAS NO.

% BY WEIGHT

February 9, 2015

Page 1 of 6

# Fludioxonil Technical

Fludioxonil

Proprietary process related impurities

131341-86-1 Trade Secret 95.06 - 100 Trade Secret

Synonyms:

4-(2,2-difluoro-1,3-benzodioxol-4-yl)-1H-pyrrole-3-carbonitrile

Ingredients not precisely identified are proprietary or non-hazardous. Values are not product specifications

## 4. FIRST AID MEASURES

If on Skin or Clothing: Take off contaminated clothing. Rinse skin immediately with plenty of water for 15 to 20 minutes. Call a poison control center or doctor for treatment advice.

**If Swallowed:** Call a poison control center or doctor immediately for treatment advice. Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by the poison control center or doctor. Do not give anything by mouth to an unconscious person.

If in Eyes: Hold eye open and rinse slowly and gently with water for 15 to 20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a poison control center or doctor for treatment advice.

If Inhaled: Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible. Call a poison control center or doctor for further treatment advice.

Most Important symptoms/effects: Dermal irritation, Respiratory irritation

**Indication of Immediate medical attention and special treatment if needed:** For ingestion there is no specific antidote available. Treat symptomatically.

## 5. FIRE FIGHTING MEASURES

**Extinguishing Media:** Recommended for large fires: alcohol-resistant foam, dry chemical, water spray, or carbon dioxide. Recommended for small fires: dry chemical or carbon dioxide.

**Special Fire Fighting Procedures:** Firefighters should wear NIOSH/MSHA approved self-contained breathing apparatus and full fire-fighting turn out gear. Toxic, irritating vapors may be formed if product is involved in a fire. Dike area to prevent runoff and contamination of water sources. Dispose of fire control water later.

**Unusual Fire and Explosion Hazards:** Avoid generating dust; fine dust dispersed in air in sufficient concentrations, and in the presence of an ignition source, is a potential dust explosion hazard. If water is used to fight fire, contain runoff, using dikes to prevent contamination of water supplies. Dispose of fire control water later. **Hazardous Decomposition Materials (Under Fire Conditions):** May produce gases such as hydrogen chloride, hydrogen fluoride, oxides and nitrogen.

## 6. ACCIDENTAL RELEASE MEASURES

**Personal Precautions:** Wear appropriate protective gear for the situation, See Personal Protection information in Section 8.

**Environmental Precautions:** Prevent material from entering public sewer systems or any waterways. Do not flush to drain. Large spills to soil or similar surfaces may necessitate removal of topsoil. The affected area should be removed and placed in an appropriate container for disposal.

**Methods for Containment:** Dike spill using absorbent or impervious materials such as earth, sand or clay. Collect and contain contaminated absorbent and dike material for disposal.

**Methods for Cleanup and Disposal:** Avoid creation of dusty conditions. If dry, sweep or scoop up material and place into container for disposal. If wet, pump any free liquid into an appropriate closed container. Decontaminate tools and equipment following cleanup. See Section 13: DISPOSAL CONSIDERATIONS for more information.

**Other Information:** Dust deposits should not be allowed to accumulate on surfaces, as these may form an explosive mixture if they are released into the atmosphere in sufficient concentration.

Avoid dispersal of dust in the air (i.e., clearing dust surfaces with compressed air).

Large spills may be reportable to the National Response Center (800-424-8802) and to state and/or local agencies.

## 7. HANDLING AND STORAGE

## HANDLING:

Minimize dust generation and accumulation. Routine housekeeping should be instituted to ensure that dusts do not accumulate on surfaces. Dry powders can build static electricity charges when subjected to the friction of transfer and mixing operations. Provide adequate precautions, such as electrical grounding and bonding, or inert atmospheres.

Avoid contact with eyes, skin or clothing. Avoid breathing dust. Users should wash hands before eating, drinking, chewing gurn, using tobacco or using the toilet. Remove clothing/Personal Protective Equipment (PPE) immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing. Remove Personal Protective Equipment (PPE) immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

#### STORAGE

Always use original container to store pesticides in a cool, dry secured warehouse or storage building. Do not store near food and feed. Containers should be opened in well-ventilated areas. Keep container tightly sealed when not in use. Do not containate water, food or feed by storage or disposal.

# 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

## **Engineering Controls:**

Where engineering controls are indicated by specific use conditions or a potential for excessive exposure, use local exhaust ventilation at the point of generation.

Ensure that dust-handling systems (such as exhaust ducts, dust collectors, vessels, and processing equipment) are designed in a manner to prevent the escape of dust into the work area (i.e., there is no leakage from the equipment).

# **Personal Protective Equipment:**

**Eye/Face Protection:** To avoid contact with eyes, wear chemical goggles or shielded safety glasses. An emergency eyewash or water supply should be readily accessible to the work area.

**Skin Protection**: To avoid contact with skin wear long-sleeved shirt and long pants, shoes, socks, and chemical resistant gloves. An emergency shower or water supply should be readily accessible to the work area.

Respiratory Protection: Not normally required. If dusts exceed acceptable levels, wear NIOSH approved air-purifying respirator with cartridges/canisters approved for use against pesticides.

General Hygiene Considerations: Personal hygiene is an important work practice exposure control measure and the following general measures should be taken when working with or handling this material: 1) do not store, use and/or consume foods, beverages, tobacco products, or cosmetics in areas where this material is stored; 2) wash hands and face carefully before eating, drinking, using tobacco, applying cosmetics or using the toilet.

# **Exposure Guidelines:**

	OSHA		ACGIH		
Component	TWA	STEL	TWA	STEL	Unit
Fludioxonil	NE	NE	NE	NE	
Proprietary process impurities	N/A	N/A	N/A	N/A	

NE = Not Established N/A= Not Applicable

# 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance:

Green-beige to faintly yellow solid powder

Odor:

pH:

Odorless

Odor threshold:

No data available 6-8

Melting point/freezing point:

199.8 – 200.1° C

Initial boiling point and boiling range

No data available Not applicable

Flash point: Evaporation rate:

Not applicable

Flammability (solid, gas):
Upper/lower flammability or explosive limits:

No data available No data available

# Fludioxonil Technical

Vapor pressure:

3.9 x 10<sup>-4</sup> mPa (25° C)

Vapor density:

No data available

Relative density:

1.49 @ 20° C

Solubility(ies):

1.39 mg/ml

Partition coefficient: n-octanol/water:

2.95

Autoignition temperature:

No data available

Decomposition temperature:

No data available

Viscosity:

No data available

Note: Physical data are typical values, but may vary from sample to sample. A typical value should not be construed as a guaranteed analysis or as a specification.

## 10. STABILITY AND REACTIVITY

Reactivity: Not reactive

Chemical Stability: This material is stable under normal handling and storage conditions.

Possibility of Hazardous Reactions: Will not occur.

Conditions to Avoid: Keep away from heat, sparks and open flame. Minimize dust generate and accumulation.

Incompatible Materials: Strong oxidizing agents: bases and acids.

Hazardous Decomposition Products: Under fire conditions may produce gases such as hydrogen chloride,

hydrogen fluoride, oxides and nitrogen.

## 11. TOXICOLOGICAL INFORMATION

Likely Routes of Exposure: Dermal contact, Inhalation

Symptoms of Exposure: Dermal irritation, Respiratory inhalation

Delayed, immediate and chronic effects of exposure: Dermal irritation, Respiratory inhalation

**Toxicological Data:** 

Data from laboratory studies conducted on Fludioxonil Technical:

Oral: Rat LD<sub>50</sub>: >5,000 mg/kg

Dermal: Rabbit LD<sub>50</sub>: >2,000 mg/kg Inhalation: Rat 4-hr LC<sub>50</sub>: > 2.6 mg/L

Eye Irritation: Rabbit: Slightly irritating Skin Irritation: Rabbit: Non irritating

Skin Sensitization: Not a contact sensitizer in guinea pigs following repeated skin exposure.

Subchronic (Target Organ) Effects: Repeated overexposure to fludioxonil may cause effects in the kidney and

Carcinogenicity / Chronic Health Effects: Fludioxonil did not cause cancer in laboratory animals. EPA has classified fludioxonil as a Group D chemical - not classifiable as to human carcinogencity.

Reproductive Toxicity: In animal studies, Fludioxonil has been shown not to interfere with reproduction.

Developmental Toxicity: Fludioxonil did not cause birth defects in animals.

Genotoxicity: In vitro bacterial assays and animal tests with fludioxonil did not demonstrate mutagenic effects.

Assessment Carcinogenicity: None listed with ACGIH, IARC, NTP or OSHA.

# 12. ECOLOGICAL INFORMATION

## **Environmental Hazards:**

This product is toxic to fish and aquatic invertebrates.

**Ecotoxicity:** 

Data on Fludioxonil Technical:

Bluegill 96-hour LC<sub>50</sub>:

0.74 ppm

Bobwhite Quail Oral LD50:

>5,200 ppm

Rainbow Trout 96-hour LC<sub>50</sub>:

0.47 ppm

Mallard Duck 8-day Dietary LC<sub>50</sub>:

>5,200 ppm

Daphnia 48-hour EC<sub>50</sub>:

0.90 ppm

Honey Bee Oral LD50:

> 25 µg/bee

# **Environmental Fate:**

Fludioxonil, does not bioaccumulate, however it is persistent in soil and is stable in water. It has low mobility in soil. The material sinks in water (after 24 hours).

## 13. DISPOSAL CONSIDERATIONS

## Waste Disposal Method:

Open dumping is prohibited. Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility.

# **Container Handling and Disposal:**

Bags: Nonrefillable container. Do not reuse or refill this container. Completely empty bag into manufacturing equipment. Offer for recycling if available or dispose of empty bag in a sanitary landfill or by incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.

**Fiber drums:** Nonrefillable container. Do not reuse or refill this container. Completely empty liner by shaking and tapping both sides and bottom to loosen clinging particles. Empty residue into manufacturing equipment. Then offer fiber drum and liner for recycling, if available.

**Plastic Drums:** Nonrefillable Container. Do not reuse or refill this container. Triple rinse or pressure rinse container (or equivalent) promptly after emptying. Then offer for recycling, if available, or puncture and dispose of in an approved sanitary landfill, or by incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.

Triple rinse containers with capacities equal to or less than 5 gallons or 50 lbs as follows: Empty the remaining contents in application equipment or a mix tank. Fill the container 1/4 full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times.

Triple rinse containers with capacities greater than 5 gallons or 50 lbs as follows: Empty the remaining contents into manufacturing equipment. Fill the container 1/4 full with water. Replace and tighten closures. Tip container on its side and roll it back and forth, ensuring at least one complete revolution, for 30 seconds. Stand the container on its end and tip it back and forth several times. Empty the rinsate into manufacturing equipment, or store rinsate for later use or disposal. Repeat this procedure two more times. Pressure rinse as follows: Empty the remaining contents into manufacturing equipment and drain for 10 seconds after the flow begins to drip. Hold container upside down over manufacturing equipment, or collect rinsate for later use or disposal. Insert pressure rinsing nozzle in the side of the container and rinse at about 40 PSI for at least 30 seconds. Drain for 10 seconds after the flow begins to drip.

## 14. TRANSPORTATION INFORMATION

Follow the precautions indicated in Section 7: HANDLING AND STORAGE of this SDS.

# DOT

# < 882 pounds per completed package:

Not regulated by DOT unless shipped by water. See IMO / IMDG description.

## ≥ 882 pounds per completed package:

UN3077, Environmentally hazardous substance, solid, n.o.s., (Fludioxonil), 9, III, Marine Pollutant

# **IMO / IMDG**

UN3077, Environmentally hazardous substance, solid, n.o.s., (Fludioxonil), 9, III, Marine Pollutant

## IATA

Not regulated

## 15. REGULATORY INFORMATION

## **EPA FIFRA INFORMATION**

This chemical is a pesticide product registered by the United States Environmental Protection Agency and is subject to certain labeling requirements under federal pesticide law. These requirements differ from the classification criteria and hazard information required for safety data sheets (SDS), and for workplace labels of non-pesticide chemicals. The hazard information required on the pesticide label is reproduced below. The pesticide label also includes other important information, including directions for use.

# Fludioxonil Technical

CAUTION. Harmful if inhaled or absorbed through skin. Avoid contact with eyes, skin, or clothing. Avoid breathing vapor or spray mist. Wash thoroughly with soap and water after handling. Remove contaminated clothing and wash before reuse.

## U.S. FEDERAL REGULATIONS

TSCA Inventory: This product is exempted from TSCA because it is solely for FIFRA regulated use.

SARA Hazard Notification/Reporting:

Hazard Categories Under Criteria of SARA Title III Rules (40 CFR Part 370):

Not listed

Section 313 Toxic Chemical(s):

None

Reportable Quantity (RQ) under U.S. CERCLA:

None

RCRA Waste Code:

Under RCRA, it is the responsibility of the product user to determine at the time of disposal, whether a material containing the product or derived from the product should be classified as a hazardous waste.

State Information:

Other state regulations may apply. Check individual state requirements.

California Proposition 65: Not Listed.

# 16. OTHER INFORMATION

National Fire Protection Association (NFPA) Hazard Rating:

Rating for this product: Health: 1 Flammability: 1 Reactivity: 0

Hazards Scale: 0 = Minimal 1 = Slight 2 = Moderate 3 = Serious 4 = Severe

This Safety Data Sheet (SDS) serves different purposes than and DOES NOT REPLACE OR MODIFY THE EPA-ACCEPTED PRODUCT LABELING (attached to and accompanying the product container). This SDS provides important health, safety and environmental information for employers, employees, emergency responders and others handling large quantities of the product in activities generally other than product use, while the labeling provides that information specifically for product use in the ordinary course.

Use, storage and disposal of pesticide products are regulated by the EPA under the authority of the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) through the product labeling, and all necessary and appropriate precautionary, use, storage, and disposal information is set forth on that labeling. It is a violation of Federal law to use a pesticide product in any manner not prescribed on the EPA-accepted label.

Although the information and recommendations set forth herein (hereinafter "Information") are presented in good faith and believed to be correct as of the date hereof, Nufarm Americas Inc. makes no representations as to the completeness or accuracy thereof. Information is supplied upon the condition that the persons receiving same will make their own determination as to its suitability for their purposes prior to use. In no event will Nufarm Americas Inc. be responsible for damages of any nature whatsoever resulting from the use of or reliance upon Information. NO REPRESENTATIONS OR WARRANTIES, EITHER EXPRESS OR IMPLIED, OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE OR OF ANY OTHER NATURE ARE MADE HEREUNDER WITH RESPECT TO INFORMATION OR THE PRODUCT TO WHICH INFORMATION REFERS AND ALL SUCH WARRANTIES ARE HEREBY SPECIFICALLY DISCLAIMED.

Date of Issue:

May 29, 2015

Supersedes: